

**BEFORE THE
Pennsylvania Public Utility Commission**

Re: Petition of PPL Electric Utilities Corporation for
Approval of an Energy Efficiency and Conservation Plan,
Docket No. M-2009-2093216

**Main Brief
Eric Joseph Epstein, *Pro se***

August 28, 2009

James McNulty
Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
PO Box 3265
Harrisburg, PA 17105-3265

Secretary McNulty:

Enclosed for filing with the Commission are an original, and seven (7) copies of Eric Joseph Epstein's Main Brief in the above-referenced proceeding.

Sincerely, *Pro se*

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**TO THE PENNSYLVANIA PUBLIC
UTILITY COMMISSION:**

Petition of PPL Electric Utilities :
Corporation: For Approval of :
an Energy, Efficiency and : **Docket No. M**
Conservation Plan : **M-2009-2093216**

**MAIN BRIEF of
ERIC JOSEPH EPSTEIN, *Pro Se***

I. Introduction

On October 15, 2008, Governor Edward Rendell signed HB 2200 into law as Act 129 of 2008 (“Act 129” or the “Act”), with an effective date of November 14, 2008. Act 129 expands the oversight responsibilities of the Pennsylvania Public Utility Commission (“Commission”) and imposes new requirements on Electric Distribution Companies (“EDCs”) in an effort to reduce energy consumption and demand, enhance the circumstances for the procurement of generation supply for default service, expand the installation of smart meter technology and expand the availability of alternative energy sources.

Act 129 is codified in the Pennsylvania Public Utility Code at Sections 2806.1 and 2806.2, 66 Pa. C.S. §§ 2806.1 and 2806.2. The Act requires an EDC with at least 100,000 customers to adopt a plan, approved by the Commission, to reduce electric consumption by at least one percent (1%) of its expected consumption for June 1, 2009 through May 31, 2010, adjusted for weather and extraordinary loads. The 1% reduction is to be accomplished by May 31, 2011. (66 Pa. C.S. § 2806.1 (c) (1))

Moreover, by May 31, 2013, the total annual weather-normalized consumption is to be reduced by a minimum of three percent (3%). (66 Pa. C.S. § 2806.1 (c) (2)) In addition, by May 31, 2013, peak demand is to be reduced by a minimum of four-and-a-half percent (4.5%) of the EDC's annual system peak demand during the period of June 1, 2007 through May 31, 2008. 66 Pa. C.S. § 2806.1 (d) (1). By November 30, 2013, the Commission is to assess the cost effectiveness of the program and set additional incremental reductions in electric consumption if the benefits of the program exceed its costs. (66 Pa. C.S. § 2806.1 (d) (2))

In an Act 129 Implementation Order entered January 16, 2009 at Docket No. M-2008-2069887 ("Implementation Order"), the Commission established that EDCs are required to demonstrate the cost effectiveness of their Energy Efficiency and Conservation Plans using the Total Resource Cost Test ("TRC Test"). (Implementation Order, pp. 14-15) Act 129 defines the TRC Test as "[a] standard test that is met if, over the effective life of each plan not to exceed 15 years, the net present value of the avoided monetary cost of supplying electricity is greater than the net present value of the monetary cost of energy efficiency conservation measures." (66 Pa. C.S. § 2806.1 (m)) The Commission has concluded that the TRC test set forth in the California Standard Practice Manual (1) provides a good starting point, but recognizes that the California TRC Test must be modified in order to meet the "unique requirements" of Act 129 and the Pennsylvania electric industry. (Implementation Order, pp. 14-16)

1 This manual can be found at:
http://www.clarkstrategicpartners.net/files/calif_standard_practice_manual.pdf.

2 PPL Electric is an EDC serving approximately 1.4 million customers in central eastern Pennsylvania.

II. Procedural History

On July 1, 2009 PPL Electric Utilities filed its Act 129 Energy Efficiency and Conservation Plan (“EE&C Plan”) with the Pennsylvania Public Utility Commission (“PUC” or “Commission”).

Eric Joseph Epstein's (“Mr. Epstein” or “Epstein”) filed a Petition to Intervene in the Above-Referenced Proceeding on July 15, 2009. Epstein’s Petition was filed Pursuant to Commission Regulations, 52 Pennsylvania Code § Sections 5.71-5.74.

On July 22, 2009, Eric Joseph Epstein received a Prehearing Order from the the Honorable Susan D. Colwell Administrative Law Judge (“ALJ”) with the Pennsylvania Public Utility Commission.

The Administrative Law Judge convened a Prehearing conference on Monday, July 27, 2009 at 1:00 pm in Hearing Room #3, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA.

Mr. Epstein attended and participated in the Public Input Hearing convened on Thursday, July 30, 2009 at the Bethlehem Town Hall City Council Chambers 10 East Church Street, Bethlehem, PA.

On August 7, 2009 Eric Joseph Epstein submitted Direct Testimony in the above-referenced proceeding.

Mr. Epstein participated in the Evidentiary Hearing convened by Judge Colwell on August 17, 2009 at the PUC, and cross examined PPL witnesses.

At the Evidentiary Hearing, Mr. Epstein entered his Direct Testimony into the record without objection.

III. Description of PPL's Plan

On July 1, 2009, PPL Electric Utilities Corporation (2) ("PPL Electric" or the "Company") filed with the Commission its Energy Efficiency and Conservation Plan ("EE&C Plan"). The filing included: (1) PPL Electric's EE&C Plan; (2) four statements of direct testimony in support of the EE&C Plan; (3) a pro forma Section 1307 Cost Recovery Mechanism; and, (4) a Petition requesting approval of the EE&C Plan, approval of the Cost Recovery Mechanism and waiver of certain Commission regulations. The Commission has directed that comments on EDCs' EE&C plans may be filed within twenty (20) days of the publication of the plan in the Pennsylvania Bulletin. (Implementation Order, p. 12) PPL Electric's EE&C Plan was published on July 17, 2009. Mr. Epstein's comments on PPL Electric's EE&C Plan will follow.

IV. Summary of Argument

PPL Electric's EE&C Plan is vague in certain areas, and diminishes the roles of nonprofit and community-based organizations. Of particular concern is the fact that PPL Electric's EE&C Plan is less than straightforward in its discussion of projected programming costs. In addition, the Company's proposal to have the ability to add or subtract programs without Commission approval is a significant concern.

V. Argument

A review of the EE&C Plan indicates that instead of reducing consumption it may actually increase consumption and may encourage customers to switch from renewable energy sources and/or natural gas to electricity. (3)

³ For example, the rebate for the heat pump water heater appears high enough to encourage people with natural gas water heaters to fuel switch to electric. (EE&C Plan, p. 44)

PPL Electric should be bound by hard cost caps on individual programs rather than a floating aggregate (or total EE&C Plan basis) as proposed by PPL Electric. (PPL Electric St. 4, p. 4) Similarly, rebates are not synchronized across utilities which will confuse customers and exclude large retailers who will not participate without the standardization of rebate amounts. (4)

Moreover, the Company needs to specifically identify the accounting that supports its administration and programming cost projections, subject to annual reconciliation as currently occurs under the CTC/ITC formula. Specifically, the estimated residential annual impact assumes a consumption-based charge and disguises program costs. Obtaining an accurate projection of plan costs is critical because the Act dictates that the total cost of any plan must not exceed two (2) percent of the EDC's total annual revenue as of December 31, 2006, excluding Low-Income Usage Reduction Programs established under 52 Pa. Code § 58 (relating to residential Low Income Reduction Programs) (67). (66 Pa. C.S. § 2806.1 (g))

In addition, there are no provisions for senior citizens or financially distressed customers even though Act 129 mandates that the EE&C Plan “include specific energy efficiency measures for households at or below 150% of the federal poverty income guidelines.” (66 Pa. C.S. § 2806 (g))

Significantly, the EE&C Plan does not distinguish between education and PPL Electric's branding and marketing campaign. During its past three Commission cases, involving the RSP, CBP and POLR programs, PPL Electric has conducted limited polling and did not screen customers for baseline levels of knowledge on consumer issues. In this regard, PPL Electric has yet to hire a certified consumer educator. More specific concerns are addressed in the following sections and are identified by issue. (Implementation Order, p. 34)

4 As a strategy to mitigate program risk, PPL Electric proposes using in-store brochures and collateral. (EE&C Plan, p. 43) PPL Electric did not reach agreement with any other utility on rebate programs. Consequently, consumers in crossover media markets will likely be confused and national retailers will possibly avoid posting information in-store to avoid customer dissatisfaction.

Finally, in PPL Electric's EE&C Plan (pp. 14-16), the Company states generally that it met regularly with stakeholders in order to receive input for its EE&C Plan. However, Mr. Epstein has a different impression. In fact, Mr. Epstein informed PPL Electric in writing as recently as June 3, 2009, that he desired more regular stakeholder meetings concerning the EE&C Plan. In this regard, Mr. Epstein also requested that minutes be provided after all meetings. If the infrequent meetings had been better organized there may have been a framework for more meaningful input from stakeholders.

PPL's "stakeholder meetings" were by **invitation only**, and held on April 1 and May 27, 2009. At the Evidentiary Hearing, none of PPL's witnesses could **explain or identify** the criteria for determining who or what was a **stakeholder**. Mr. Kleha did state the meetings were open to "those who walked off the street," although it was unclear how many pedestrians availed themselves to this opportunity since the meeting was held at the Holiday Inn Harrisburg East on Lindel Road. The hotel is sandwiched between a busy highway and a retail shopping center. Yet, PPL concluded no additional meetings were warranted: No minutes were transcribed, minutes were not reviewed or verified, transcripts do not exist, and teleconferencing was not offered. PPL can not defend or substantiate statements that **purport to represent consensus building**. (Transcript, Page: 241: Lines 10-25, and Page: 242, Lines 1-5.)

A. Act 129 Conservation and Demand Reduction Requirements

Please refer to the discussion on pp. 4-6

1. Overall Conservation Requirements: 2011 Requirements & 2013 Requirements

Please refer to the discussion on pages 4-6

Requirements for a Variety of Programs Equitably Distributed

a. Time Of Use Rates

PPL Electric discusses Time of Use (“TOU”) rates at pp. 84-88 of the EE&C Plan. Despite acknowledging that the Company must make a separate filing for approval of TOU rates pursuant to a Commission-approved POLR settlement at Docket No. P-2008-2060309 (5) (EE&C Plan, p. 84), PPL Electric outlines its TOU program in its EE&C proposal and indicates that the program “will be similar in format to pilot TOU programs the Company has been conducting since 2002.” (Id) However, any current discussion of a TOU program is at best premature, and at worst, a violation of the settlement discussed previously. Moreover, the TOU proposal does not discuss the fact that PPL Electric agreed under the POLR settlement to consider Mr. Epstein’s “Green Weekend” rate proposal in its TOU proceeding.

In addition to the above discussion, Mr. Epstein’s concerns with PPL Electric’s TOU proposal include, but are not limited to the following:

- Direct Load Control issues have not yet been determined.
- Discussions during the TOU collaborative indicate that there must be universal and consistent timing for the cycles.
- The EE&C Plan indicates that projected TOU costs are based largely upon information gathered through PPL Electric’s ongoing TOU pilot programs. (EE&C Plan, p. 87)
- However, the TOU pilot programs have had limited customer participation, will not conclude until 2010 and have not been fully evaluated. (PPL Electric St. 3, pp. 6-8)

⁵ The Commission has determined that the two (2) percent limitation provision of the Act should be interpreted “as an annual amount, rather than an amount for the full five-year period.”

- PPL Electric states that it plans to spend \$4 million over 3.5 years on the TOU program, \$3.3 million of this amount will pay for marketing the program. EE&C Plan, p. 88 (Table 53).

Mr. Epstein questions these proposed expenditures when (as discussed above) the TOU pilot programs have not been fully evaluated. Many questions remain unanswered such as: (1) how many customers have participated in TOU pilot programs? (2) How many of these customers received a bill that was higher as a result of the program? (3) What are the average and median demand savings per customer?

b. 10% Government/Non-Profit Requirement

Please refer to the discussion on pages 7-8

c 1) Residential Energy Assessment And Weatherization Program

PPL Electric states that the objectives of this program are to: (1) provide customers with the opportunity to participate in a walkthrough survey or comprehensive energy audit; (2) provide customers with opportunities to reduce their energy costs and increase their energy efficiency; (3) encourage customers to weatherize their homes by providing rebates; (4) install low-cost energy saving measures as part of both the survey and the audit, which may result in maximum savings; (5) promote other PPL Electric energy-efficiency programs; and, (6) obtain participation by no less than 5,940 customers through 2013, with a total reduction of 5,960 MWh and 590 kW. (EE&C Plan, p. 48)

However, in its discussion of the target market, PPL Electric indicates that “[p]articipants must have electric heat, electric water heating, and/or central air conditioning.” (Id) Consequently, if a residential customer uses a window air conditioner or does not have air conditioning at all, that customer is not eligible to participate in this program. Such a requirement unnecessarily excludes customers who might otherwise benefit from the program (and, by implication, increase energy reductions under the EE&C Plan). All residential customers should be eligible for surveys and/or audits under this program.

In addition, it appears that customers must agree to a \$50.00 walkthrough survey or pay for a comprehensive energy audit (6) in order to be eligible for an installation rebate. (EE&C Plan, pp. 48-49) After agreeing to have the walkthrough or audit, other consumption-reducing information is provided to the customer. Such requirements create the potential for a two-tiered system in which higher income customers obtain greater access to consumption-reducing information. Instead, all customers should be encouraged to participate in all programs offered under the EE&C Plan without regard to economic status.

Moreover, significant efforts should be made to eliminate financial barriers to participation in this program. Also, it is unclear what diagnostic tests will be performed during these audits and who the auditors will be. To prevent abuse, auditors should be independent of PPL Electric and prohibited from selling products.

c 2) Low-Income Winter Relief Assistance Program (WRAP)

The stated objectives of this program are to: (1) assist more low-income customers to reduce their energy use and energy expenses; (2) maintain partnerships with social service agencies, CBOs and local contractors to ensure maximum and timely assistance; (3) provide a referral stream to low-income programs, including PPL Electric's OnTrack, Operation HELP, E-Power Wise (Act 129 program), and LIHEAP; and, (4) obtain participation by no fewer than 23,590 customers through 2013, with a total reduction of 18,695 MWh and 2,985 kW. (EE&C Plan, p. 94)

6 PPL Electric has estimated (**without attribution**) that a comprehensive energy audit will cost \$500.00. (EE&C Plan, p. 51) Under the EE&C Plan, customers agreeing to a comprehensive energy audit receive a subsidy incentive of \$250.00 if they are both central air conditioning and electric heat customers and a \$100.00 incentive is provided central air conditioning or electric heat only customers. (EE&C Plan, p. 53) It is unclear why a significantly **lower incentive** is provided for air conditioning only customers when PPL Electric is a summer peaking utility and greater savings could accrue from significant participation by air conditioning only customers. (EE&C Plan, p. 49)

Mr. Epstein is concerned that costs related to PPL Electric's existing Universal Service Programs ("USP") will be attributed to this program. The Company has not indicated how USP and Act 129 costs will be segregated. (7) Also, it is unclear how these programs will be impacted by the significant increase in federal weatherization money.

Moreover, PPL has failed to explain why it is relying on 2000 census (Transcript, Page: 182, Lines: 20-25, and p, 183, Lines: 1-13), data rather than updated data that is readily available. Mr. Cleff acknowledged: "Our intent would be to use the data as of the filing date of this plan, not to try to refine the estimated number of low income customers every single year and having a moving target where we have to completely adjust the plan percentages."

At a minimum, PPL could have accessed and utilized the 2007 estimated population figures which were **available on July 1, 2008**. United States Census Bureau data was readily available on-line and indicate that as of July 1, 2007 - **two years prior to the release PPL's EE&C plan** - sixteen out of the 29 counties (8) in the Company's rate base contain **double-digit poverty levels**. This data was reported *prior* to the recession and the steep decline in housing starts. (9)

7 The Company has stated that it intends to manage this program with "existing staff ... supported by internal marketing and administrative staff." (EE&C Plan, p. 98) However, there is no indication as to how such costs will be segregated from USP administrative costs.

8 Berks: 11.1%; Carbon: 10.6%; Clinton: 13.3%; Columbia 13.1%; Dauphin: 11%; Lackawanna: 12.6%; Luzerne: 11.7%; Lycoming 13.0%; Montour: 10.4%; Northumberland: 12.9%; Schuylkill: 11.9%; Snyder: 10.7%; Susquehanna: 11.3%; Union: 13.2%; Wayne: 11.2%; and, Wyoming: 10.9%.

9 In June, 2009, the U.S. Department of Labor reported unemployment statistics for Pennsylvania that demonstrate the unemployment rate in PPL counties was 8.5% while the state level was 8.3%.

PPL's current demographic data are **ten years old** and **undercount senior citizens** (10), and those **households living below federal poverty levels**. Additionally, PPL has failed to survey or plan for the impact of the removal of rate caps on customers. (Transcript, Page: 181, Lines: 16-25).

Mr. Epstein also has an issue with who will benefit from any energy reductions obtained under the program. The Company indicates that if a multiunit building has a single meter, the landlord, not the low-income customer, will benefit from any energy reductions. (EE&C Plan, p. 95; Table 60) There does not appear to be a logical reason as to why this program should subsidize multiunit buildings where low-income tenants do not pay the bills. If there is one master meter, these low-income tenants are not even customers of PPL Electric.

c 3. E-Power Wise Program

The stated objectives of this program are as follows: (1) provide quality energy and efficiency education to low-income customers so that they can make informed choices about their energy use; (2) provide information about low-cost/no-cost energy-efficiency strategies low-income customers can use in their homes; (3) provide low-income customers with energy-efficiency measures in free take-home energy-efficiency kits; and, (4) obtain participation by no fewer than 7,200 customers through 2013 with a total reduction of 1,080 MWh and 150 kW. (EE&C Plan, p. 100)

10 As of 2007, 15% of PPL's 1.4 million residential customers were 65 years-of-age or older.

This expansion of the existing e-power wise program (18), as with other low-income programs included in the EE&C Plan, presents segregation of expense issues involving USP efforts. In short, it is unclear how much customer education money will be used to fund this program. Moreover, PPL Electric anticipates that 7,200 low-income customers will participate in the program. EE&C Plan, p. 100. However, it is unclear how many of these low-income customers will also receive WRAP services or participate in the CFL program. These issues have to be resolved in order to ensure that expenses are not being double-counted.

Also, PPL Electric states that an “Energy Home Savings Kit ... may include: two CFLs...low-flow showerhead...” (EE&C Plan, p. 102) This statement demonstrates a lack of specificity that makes a comprehensive evaluation of the program very difficult. Specificity is necessary to determine whether the projected savings will actually materialize. Such specificity is also necessary in order to distinguish projected savings from the normal customer conservation that results from factors such as periodic rate increases. The Company projects \$332,142.00 in total customer incentives for the program. (EE&C Plan, p. 105; Table 68)

However, aside from a listing of items that may be included in an Energy Home Savings Kit (EE&C Plan, p. 102), PPL Electric has failed to identify the nature of these incentives and other factors such as the forecasted average cost per customer.

^{1 1} If PPL Electric owns the e-power brand, the issues previously discussed concerning brand marketing are applicable here.

d) Issues Relating to Individual Conservation and Demand Reduction Programs : Residential

d 1) Compact Fluorescent Lighting Campaign

The EE&C Plan indicates that PPL Electric's strategy to improve the use of Compact Fluorescent Lamps ("CFLs") is to: (1) provide a mechanism for customers to easily obtain discounted qualified CFLs; (2) develop and execute strategies aimed at increasing sales of CFLs [12]; (3) establish a CFL giveaway program for customers; (4) increasing customer awareness and understanding of CFLs; (5) promote customer awareness and understanding of the ENERGY STAR label; (6) promote other PPL Electric energy-efficiency programs through CFL package inserts; and, (7) distribute no fewer than 7,125,000 CFLs through 2013, with a total reduction of 292,100 MWh and 45,630 kW. (EE&C Plan, p. 57)

However, the EE&C does not discuss the disposal costs for mercury contained in the CFLs. (13) In fact, CFL disposal costs are being passed on to consumers and municipalities. Consequently, unless careful consideration is given to the issue of CFL disposal costs, the CFL effort is likely to repeat the tritium and exit sign issue that currently exists at Pennsylvania landfills. CFL bulbs contain small amounts of mercury, a potent neurotoxin that must be properly disposed of in order to protect the environment. Mercury is especially harmful to children and fetuses.

12 PPL has indicated that it intends to put the PPL logo on CFL marketing materials. (EE&C Plan, p. 59) However, if the PPL logo is placed on CFL boxes, distribution rate branding issues must be addressed because the intent of the EE&C Plan is to **reduce not increase consumption**.

13 PPL witness Peter Cleff acknowledged that the CFL disposal program is limited to one page (p. 58) in the EE&C. The Company plans to assign "disposal options to the CFL's CSPs," but PPL declined to comment on liability exposure. "In our specifications and proposed contracts with CFL CSP's, it is their responsibility to recommend the best method of disposal." (Transcript, Page 178, Lines: 17-19). CFLs will be branded with PPL's logo and there is no discernible mechanism in place to attach liability or remediation to an unidentified CSP once the bulbs leak out of a landfill. "I would say it's just going to be our name and logo on the promotional materials there's not going to be any additional information." (Transcript, Page. 175, Lines: 9-11)

A few states, cities and counties have prohibited the disposal of CFLs in the trash, however, in most states, including Pennsylvania, the practice is legal. Although a few large retailers (such as Home Depot) have instituted voluntary CFL recycling programs, a comprehensive national effort, involving the mandatory recycling of CFLs is needed. However, at minimum, PPL Electric should be required to account for the cost of a CFL disposal program in connection with its CFL initiative. This issue will not fade away. PPL Electric's EE&C Plan should identify and incorporate the cost of CFL disposal.

PPL Electric's EE&C Plan relies heavily upon its proposed CFL program to deliver the consumption savings it projects for program years 2010-2012. EE&C Plan, p. 28 (Table 6 – Program Summaries). However, such reliance upon CFL savings appears to be highly speculative because CFL penetration among residential customers may already be significant. In this regard, Metropolitan Edison Company customer research indicated that there were already 8.5-8.6 CFL bulbs per residential household. Moreover, PPL Electric has not indicated how it will ensure that only CFL bulbs installed in PPL territory will be counted and funded. (14)

If PPL Electric's CFL program is not supportable, **the Plan will not come close to meeting its consumption reduction targets.** PPL's own data undermine the Company's Act 129 predictions. Mr. Cleff stated that the EE&C was based on PPL's informational surveys conducted in 2007 and 2008 which demonstrated that **30%** of PPL's customers already installed CFLs. (Transcript, Page 173, Lines: 7-15). More recent PPL data demonstrate **69%** of PPL's customers have already installed CFLs. (PPL' Customer Satisfaction Research, Residential Electric, Q 1 2009 Results, Rate Cap and Other Rate Issues, March, 2009. According to Mr. Cleff, PPL's informal surveys were used to "inform" PPL's Act 129 plan (Transcript, Page: 173, Lines: 13-15) , yet CFL market penetration is **grossly underestimated by at least 39%.**

14 Mr. Cleff estimated "less than 1%" or an "insignificant percentage of the total light bulbs" would be installed in the PPL rate base. (Transcript, Page: 174: Lines: 6-21). However, he failed to provide any data to substantiate this estimate.

Moreover, PPL's plan fails to factor the large and pervasive footprint established by Pennsylvania's ARRA Weatherization State Plan, p.6:

Replacement of light bulbs and installation of a load control receiver, which allows a resident to demonstrate when individual appliances turn on and off in order to make efficient use of electricity and purchase power only when needed, will become standard protocol wherever possible.

d 2) New Homes Program

This program encourages the construction of energy-efficient new homes addressing both the building shell and electricity-using equipment. The program is based on the U.S. Environmental Protection Agency's ENERGY STAR New Homes program. (EE&C Plan, p. 68) PPL Electric further states that it does not expect to launch this program "until mid-2010 at the earliest. While the program's basic design is outlined here, some program details are yet to be determined." (Id)

Consequently, Mr. Epstein urges the Commission not to approve this program until the details have been confirmed by the Company and reviewed. In this regard, the EE&C Plan states at p. 68 that to be eligible for the New Homes program the participants must meet several mandatory Energy Star requirements. However, those requirements are not identified.

Similarly, the customer incremental cost for an Energy Star rated home is estimated to be approximately \$1,200. (EE&C Plan, p. 70) However, the source for this estimate and the associated assumptions are not provided. The EE&C Plan at p. 70 also states that the customer receives the rebate, but is it the customer or the builder that actually receives the rebate?

Moreover, at least one of the provisions in the program appears to encourage the selection of electric over natural gas as the primary energy source. Table 4 on p. 70 indicates that builders of electric cool and heat homes can receive a \$2,000.00 incentive. The availability of this rebate could persuade a builder to build an all-electric home instead of a natural gas home. Finally, despite the fact that the New Homes program will not be launched until June 1, 2010 at the earliest (EE&C Plan, pp. 68 & 73), PPL Electric has included \$313,000.00 in expenses for the program prior to its launch, including \$84,000.00 in administrative costs. (EE&C Plan, p. 73; Table 37 - Year One).

d 3) Renewable Energy Program

The EE&C states that the objectives of this residential program are as follows: (1) provide customers with opportunities to self-generate electricity using clean, renewable resources; (2) encourage customers to install solar photovoltaic systems and geothermal heat pumps; (3) promote strategies that encourage and support market transformation toward clean, renewable energy generation; and, (4) achieve no less than 1,260 installed measures through 2013, with total reduction of 18,500 MWh and 2,000 kW (combined totals for all target customer segments). (EE&C Plan, p. 74)

Mr. Epstein believes that this program would be more effective with a broader scope. For example, solar thermal is not included but it has proven to be much more cost effective than photovoltaic. Also, the EE&C Plan states that the program “will be available to residential and government/nonprofit sector customers with onsite resources to supply renewable energy systems.” (EE&C Plan, p. 74) However, the program will use federal tax credits, which nonprofit organizations cannot use. In addition, this program is primarily a geothermal program which again encourages electric heat by providing a \$217 per ton rebate; the solar rebate is \$2 per watt. (EE&C Plan, p. 76; Table 40)

In identifying anticipated costs of the solar photovoltaic, PPL Electric assumes the availability of a state incentive of up to \$2.25/watt. (EE&C Plan, p. 75 (f.n. 41)) However, the program is not projected to start until the second quarter of 2010 (EE&C Plan, p. 76), when the state rebate will likely be lower than projected. Also, the Company does not mention what happens to the solar alternative energy credits that will be generated under the program. Mr. Epstein believes that PPL Electric should consider expanding the program to include small wind and biomass. Such a program could be run by the Sustainable Energy Fund, and the rebate should apply to all renewables on a per watt basis without regard to renewable fuel source.

d 4) Direct Load Control Program

PPL Electric identifies the objectives of this program as follows: (1) provide incentives to customers willing to reduce their energy consumption during summer peak hours; (2) educate customers about energy-efficiency and peak periods; (3) obtain participation by no less than 45,000 customers through 2013, with a total reduction of 32 MW. (EE&C Plan, p. 79) Mr. Epstein believes that this program should be rejected in total. The program is designed to shed load only during the highest hours, so that PPL Electric can maximize power plant utilization.

Instead of reducing consumption, this program is designed to ensure that PPL Electric can obtain maximum utilization of its generating resources without causing a power failure. While that may be a worthy objective from a system reliability standpoint, there is no apparent energy consumption reducing benefit. Moreover, PPL Electric's control of customers' air conditioning settings could lead to uncomfortable temperature levels in customer homes for a meager \$32 incentive. (EE&C Plan, p. 81) Further, the Total Resource Cost of this program indicates that it is not cost effective even with \$0 identified as Direct Participant Costs. (EE&C Plan, p. 83; Table 48)

d 5) Energy Efficiency Behavior & Education Program

The stated objectives of this program are to: (1) educate customers about free (no cost) or very low-cost measures and behaviors that can significantly reduce energy consumption or demand; (2) educate consumers about PPL Electric's online resources and energy-efficiency and conservation programs; (3) encourage customers to adopt more energy efficient behaviors and to install energy-efficiency measures in their homes by becoming more aware of how their behavior and practices impact their energy usage, by comparing their electric usage with a controlled group of customers who have a similar usage pattern in the same geographical area, or by other methods; and, (4) obtain participation by no fewer than 100,000 customers through 2013, with a total reduction of 18,100 MWh and 2 MW. (EE&C Plan, p. 89)

Mr. Epstein believes that energy consumption education is a worthy goal, and that behavioral changes can often have more significant impact than the replacement of equipment. However, PPL simply made up definitions (15) for the program, and has no mechanism in place to gauge and assess impact. However, educational outcomes are difficult to measure and such programs are often used to expand brand awareness. (16) For example, PPL Electric forecasts reductions of 18,100 MWh of consumption and 2 MW of demand, without discussing how those numbers were calculated or what research supports the forecasts.

15 Mr. Cleff's definition of marketing are "those activities directly related to the promotion of a specific program...branding is intended to mean PPL's name that will be listed on media program brochures and in-store advertising. And then for education is the general promotion of energy efficiency actions and behaviors." (Transcript, Page 175, Lines: 19-25 and Page 176, Lines 1-5.) Mr. Cleff noted, "That is my definition of how we would be doing marketing and advertising and education for purposes of the Act 120 programs. They are not textbook classifications per se." (Transcript, Page 176, Lines: 9-12)

16 For example, PPL Electric currently markets through PPL Corporate Services, which also markets PPL Energy Plus. The EE&C Plan states that the Company will "coordinate closely with PPL Electric's existing and new marketing activities." (EE&C Plan, p. 90) Consequently, PPL Corporate Services could be included in these marketing activities.

Similarly, PPL Electric states that it “may sponsor presentations and demonstrations, increase direct outreach to customers, participate in local energy education events, and provide energy educational materials to local schools, community organizations, and senior citizen groups, among other activities.” (EE&C Plan, p. 90)

However, PPL Electric’s logo will appear on items displayed to the public and the Company may be acknowledged as the sponsor of the event. “We anticipate that the Company’s logo and name will be on all promotional materials in stores...I would say it’s just going to be our name and logo and promotional materials. There’s not going to be any additional detailed information,” Mr Cleff. (Transcript, Page: 175, Lines: 4-18).

Since the Company would obtain a marketing benefit from such events, it is difficult to determine how much of the event should be attributed to energy consumption reduction.

Q: “Then is it safe to assume you don't have a plan for how you separate marketing, branding, and education, that they are too closely intertwined but separate?” (Transcript, Page: 177, Lines: 24-25 and Page: 178; Lines 1-2) .

Mr. Cleff: “ That is correct.” (Transcript, Page: 178, Lines: 4-18).

Consequently, it appears that the Company’s projected energy consumption and demand savings for this program are highly speculative.

**e) Proposals for Improvement of EDC Plan:
Residential**

Please refer to the Ordering Paragraphs.

F. Cost issues

f1) Cost Recovery Mechanism: Detail and Scope of Expenses

PPL Electric has requested recovery of all upfront expenses, including the expenses attributable to the Cadmus Group. (17)

Accordingly, the expenses associated with the Cadmus Group should be denied. Similarly, the Company has stated that its portfolio includes expenditures in 2010 and 2011 to develop the direct load control (“DLC”) and curtailment infrastructure. (EE&C Plan, p. 13) Although costs are amortized over the life of the Plan (5 years), PPL Electric has indicated that it plans to agree to contracts that extend beyond 2013, the last year of the Plan.

f2) Cost Recovery: Two Percent Limitation

PPL Electric has also misinterpreted Act 129 in regard to the maximum amount that an EDC can spend in compliance with the Act. The Company states that it believes that the 2% annual cap on expenses should be applied on a total EE&C Plan basis. (EE&C Plan, p. 24) However, the Act imposes a 2% maximum based upon annual revenues received by the EDC in the year ended December 31, 2006, excluding the cost of Low Income Reduction Programs. (66 Pa. C.S. § 2806.1 (g)). There is no mention of the term average revenue.

17 PPL Electric hired the Cadmus Group, an environmental and energy consulting firm, to assist in the preparation of the EE&C Plan. EE&C Plan, p. 5. The Commission has determined that “CSPs covered by the procedures in this section are those that provide plan consultation, design, administration and management services to the EDC.” (Implementation Order, p. 25)

PPL Electric's claim that the Act 129 evaluator should not be included under the Company's 2% cost cap (EE&C Plan, p. 25), should also be rejected. The Company claims that the costs of the evaluator are not the "costs of PPL Electric's EE&C Plan." However, it is reasonable to attribute the cost of evaluating PPL Electric's Plan to the Company. In this regard, the cost of the evaluator is similar to the cost to hire a CSP to accomplish the goals of Act 129. The Company has not objected to the latter costs being included in the 2% cap. PPL Electric's proposal that the cost recovery mechanism be applied to the distribution charges for each customer class rather than appear as a separate line item on customers' bills, should also be rejected. The Company claims that "[b]ecause all of the programs included in PPL Electric's proposed EE&C Plan will benefit both shopping and non-shopping customers, the Company has designed its cost recovery mechanism to be non-bypassable." (EE&C Plan, p. 25)

However, this proposal hides the true cost within the bill. Instead, the Company should impose a separate flat charge for two reasons: (1) rate payers would be informed as to how much the program costs them; and, (2) under the variable rate proposed by PPL Electric, those that benefit from the program and reduce consumption will also pay less into the program.

Despite the Company's claim that all the programs included in its EE&C Plan benefit both shopping and non-shopping customers, this point is later contradicted when the Company indicates that two of the fourteen EE&C programs will not be available to non-default service customers. (EE&C Plan, p. 221)

The Company also states that it "does not propose to reconcile the revenues collected under the cost recovery mechanism to its actual spending levels in each year..., these spending levels can vary from year to year." (EE&C Plan, p. 26) In short, PPL Electric is proposing to reconcile against budget each year, and then reconcile to actual at the end of the plan. However, the reconciliation should be to actual expenses at the end of each year. Such a process provides the most exact identification of cost to the EDC.

Moreover, the latter process is consistent with the Commission's determination that the total cost of any plan in regard to the 2% limitation, **"should be interpreted as an annual amount, rather than an amount for the entire five-year period."** (Boldface type added) (Implementation Order, p. 34)

The Company's proposal is simply a poorly-designed attempt to circumvent the 2% cost-cap.

VI. Concussion

For the reasons stated above, Eric Joseph Epstein respectfully submits that the Commission should adopt the proposed changes to PPL Electric's EE&C Plan.

VII. Proposed Ordering Paragraphs

(1) PPL Electric's EE&C Plan must be amended to provide for households that are in financial distress. Act 129 mandates that the EE&C Plan "include specific energy efficiency measures for households at or below 150% of the federal poverty income guidelines." (66 Pa. C.S. Section 2806 (g))

(2) PPL Electric's EE&C Plan must be amended such that its efforts in support of Act 129 are clearly differentiated from its corporate branding and overall marketing campaign.

(3) PPL Electric's Time-Of-Use ("TOU") rate proposal is stricken from the EE&C Plan because any current discussion of a TOU proposal is premature since proposed TOU costs are high, the TOU pilot program has not yet concluded and, most importantly, have not been fully evaluated. Moreover, there is no evidence that PPL Electric has considered Mr. Epstein's *Green Weekend* rate proposal as it promised to do under its POLR Settlement.

(4) PPL Electric's Compact Fluorescent Light ("CFL") proposal must be amended to include current data on CFL penetration in the Company's service territory. Since evidence of record indicates that CFL penetration may already be significant, the Company must show that the significant consumption reductions it attributes to future CFL use, will actually materialize.

(5) PPL Electric has misinterpreted Act 129 in regard to the maximum amount that an EDC can spend in compliance with the Act. The Company states that it believes that the 2% annual cap on expenses should be applied on a total EE&C Plan basis. (EE&C Plan, p. 24) However, the Act imposes a 2% maximum based upon annual revenues received by the EDC in the year ended December 31, 2006, excluding the cost of Low Income Reduction Programs. (66 Pa. C.S. Section 2806.1 (g))

There is no mention of the term *average revenue*.

(6) PPL Electric's EE&C Plan must be amended to explicitly indicate how existing Universal Service Program ("USP") costs will be attributed to the Low-Income Winter Relief Assistance Program ("WRAP"). The Company must identify how USP and Act 129 costs will be segregated and, also, how these programs will be impacted by federal weatherization money.

(7) PPL Electric must amend its EE&C Plan to indicate who will benefit from any energy savings under the WRAP program when a multi-unit building has a single meter. Under circumstances where the low-income tenants are not customers of the EDC there is no apparent reason to provide benefits to a non-low-income building owner who is the actual customer of the EDC.

Respectfully submitted,

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Dated: August 28, 2009

CERTIFICATION OF SERVICE

I hereby certify that I have this day served a true and correct copy of the foregoing document upon the active participants named below by US mail or hand delivery or electronic transmission in accordance with the requirements of Section 1.54.

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