Prepared Testimony of

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before the

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Democratic Policy Committee

Hearing on Achieving Carbon Neutrality – Reducing Energy Demand

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Chairman Sturla, Representative Vitali, and Members of the Committee:

Thank you for the opportunity to present testimony on the provisions of House Bill 129, Printer's No. 585, of this 2015 Session which amend Act 129 of 2008.

Although I have been greatly assisted by the Public Utility Commission staff experts who have accompanied me today, and although my remarks may well be the views of my four colleagues as well, please hold me solely responsible for what follows because the Commission has not taken an official position on House Bill 129.

My testimony is divided into the following parts:

1. A brief history of Act 129 and its provisions.
2. How the percentage incremental reduction required of each electric distribution company (EDC) for overall electricity consumption and peak load was determined for implementation purposes.
3. The costs incurred to implement energy efficiency and conservation (EE&C) plans and to meet the required reductions in overall electricity consumption and peak demand contained in Act 129.
4. The benefits realized through these programs.
5. Previously submitted Commission suggestions for improvement of the EE&C and demand response provisions of Act 129.
6. My specific comments on the provisions of House Bill 129, Printer's No. 585.

A Brief History of Act 129 and Its Provisions

Act 129 was signed into law on October 15, 2008, with an effective date of November 14, 2008. The Policy Objective of the law stated: "It is in the public interest to implement cost-effective energy efficiency and conservation measures that reduce electricity price volatility, promote economic growth and ensure affordable and reliable electric service to all Pennsylvania residents and businesses."

The Act created an Energy Efficiency & Conservation Program to be overseen by the PUC. It required Electric Distribution Companies (EDCs) with at least 100,000 customers to adopt and implement cost-effective energy efficiency and conservation plans to reduce energy consumption and demand. New plans were to be submitted every five years or as the PUC directed, and each of the multi-year phases was divided into planning years (PY1, PY2, etc.).

EDC plans were filed with the PUC by July 1, 2009, and the PUC approved them by November 1, 2009. The EDCs began program implementation soon thereafter.

In Phase I of implementation, the plans were required to reduce retail electricity *consumption* (1% by May 31, 2011 and 3% by May 31, 2013) relative to the baseline period from June 1, 2009 to May 31, 2010, and to reduce *peak demand* in the 100 highest annual peak consumption hours (4.5% by May 31, 2013) relative to the baseline period from June 1, 2007 to May 31, 2008.

The total cost of any plan could not exceed 2% of the EDC's total annual revenue as of December 31, 2006. These costs could be recovered from the EDC's customers by means of an annual cost-recovery mechanism in accordance with Section 1307 of the Public Utility Code (essentially an annual estimation of the anticipated cost in the subsequent year which is recovered in current rates, and an annual true-up based on experience). But the "decreased revenues of an electric distribution company due to reduced energy consumption or changes in energy demand" could not be recovered on a current basis but had to await the EDC's next rate increase request where any alleged decrease in revenues would be examined together with the utility's other revenues and expenses under the "just and reasonable" standard of Section 1308.

The cost effectiveness of each EDC's plan and its elements were determined by a PUC-approved "Total Resource Cost" (TRC) test which could be met "if over the effective life

of each plan not to exceed 15 years, the net present value of the avoided monetary cost[1] of supplying electricity is greater than the net present value of the monetary cost of energy efficiency conservation measures."[2] The TRC test excludes environmental and societal costs and benefits[3] unless such costs and benefits were already embedded in the wholesale cost for generation of electricity.

The PUC was authorized to obtain the expert assistance by competitive bid of a "Statewide Evaluator" (SWE) to formulate review criteria and compliance procedures and results using a Technical Reference Manual (TRM) and to generally give technical and economic advice.

Rather than financial incentives to achieve the stated goals, penalties of between $1 million and $20 million were authorized for an EDC's failure to achieve the mandated consumption and peak demand reductions.

If benefits exceeded costs, the PUC was required to "adopt additional required incremental reductions in consumption" after 2013.

Energy efficiency and conservation measures defined by the Act were:

- Solar/solar photovoltaic panels
- Energy efficient windows and doors
- Energy efficient lighting
- Geothermal heating
- Insulation
- Air sealing

[1] "Avoided monetary cost" includes energy, capacity, ancillary, and transmission and distribution costs.

[2] TRC test example: Calculate the cumulative electricity cost savings over the life of a Compact Fluorescent Light (CFL) bulb and reduce these savings by the incremental cost of a CFL relative to a standard light bulb, including any EDC administrative costs of the EDC's light bulb program.

[3] Examples of excluded benefits include carbon emission reductions, water, natural gas, and oil use savings, home and business comfort, sulfur dioxide (SO_2), nitrous gas (NOx), and particulate emissions reductions which improve air quality.

- Reflective roof coatings
- Energy efficient heating and cooling equipment/systems
- Energy efficient appliances
- Other technologies, practices, or measures approved by the PUC

Costs

The EDCs' total budgeted costs to implement the EE&C plans for Phase I were $978 million. For the entirety of Phase I, the total cost to the EDCs to successfully implement these plans was $803.7 million (funds in excess of costs were refunded to ratepayers). The total cost of implementation, including estimated participant costs,[4] was $1.755 billion ($1,755,384,000).

Benefits

The total avoided costs (or benefit) to consumers was $4.2 billion. That is, the benefits of the Phase I programs were more than double their costs.

All EDC plans were cost effective. The seven EDCs collectively saved 5,403,370 MWh/yr and 1,540.61 MW as of May 31, 2013 (end of PY 4). All EDCs exceeded their individual 2013 compliance targets for electricity consumption savings and peak demand reductions as established by the Commission based upon their reported and verified Phase I energy and demand savings. Confirmed savings at the conclusion of the first phase of the EE&C program were 123% of statutory requirements for energy, and 113% for demand.[5] Total estimated benefits of this phase were $4,192,389,000. Therefore, with the total estimated costs of $1,755,384,000, the benefits exceeded the costs by $2,437,006,000, resulting in a benefit cost ratio of 2.4.

[4] Implementation costs include EDC and contractor Act 129 administrative costs and customer investment costs on efficiency measures.

[5] West Penn was fined $1.3 million for failing to achieve the required 1% of energy consumption savings by May 31, 2011, but it achieved the May 31, 2013 energy consumption and peak demand savings requirements.

There were also quantifiable indirect benefits for our state and local economies.

o With the implementation of Act 129, the Commission instituted a Conservation Service Provider (CSP) registry program as required by the Act. CSPs provide services to help EDCs carry out the various conservation load programs throughout the Commonwealth.[6] To date, approximately 140 businesses have registered to perform such services.

o Act 129 has benefitted all customer classes directly and indirectly through reduced energy consumption and decreases in peak prices, thereby lowering billed amounts. This is particularly true for Pennsylvania's low-income customers who typically receive various forms of public assistance. Low-income customers receive additional assistance and offerings under the EE&C plans.[7] In total, energy reductions from Phase I amounted to 201,072 MWh for low-income customers, equal to 3.7% of total Phase I savings.

o The electric grid benefits by shaving (lowering) peak loads, thereby helping to increase reliability and reducing the need to call on increased sources of generation, which typically are the dirtiest and most expensive sources of generation available and typically are needed during the worst air quality days. The associated emissions reductions from Act 129 include an estimated reduction of more than 2,500 tons of NO_x emissions, nearly 6,500 tons of SO_2 emissions, and nearly 3.9 million tons of CO_2 emissions.[8]

[6] CSPs are service providers that assist in program implementation, actual installment of energy efficiency equipment, customer outreach, assistance and marketing, or help with plan performance measurement. CSP participation in these plans provides local jobs and tax bases for local and state economies.

[7] Act 129 programs provided additional funding above and beyond existing Low Income Usage Reduction Programs (LIURP).

[8] NO_x is a generic term for mono-nitrogen oxides NO and NO_2 (nitric oxide and nitrogen dioxide). Nitrous oxide gives rise to nitric oxide (NO) on reaction with oxygen atoms, and this NO in turn reacts with ozone. As a result, it is the main naturally occurring regulator of stratospheric ozone. It is also a major

As a result of the success of Phase I, and pursuant to statutory requirements, the Commission implemented a Phase II of EE&C programs for the planning period June 1, 2013 through May 31, 2016, for PY5, PY6, and PY7. Phase II was preceded by an energy efficiency baseline study for residential and commercial sectors and an energy efficiency potential study during Phase I. The results of these studies helped the Commission to establish cost effective energy savings requirements for each of the EDCs for Phase II as follows:

EDC	3 Year % of 2009/10 Forecast Reductions	3 Year MWh Value of 2009/10 Forecast Reductions
Duquesne	2.0	276,722
Met-Ed	2.3	337,753
Penelec	2.2	318,813
Penn Power	2.0	95,502
PPL	2.1	821,072
PECO	2.9	1,125,851
West Penn	1.6	337,533

Percent goals were again measured against the 2009/2010 forecast period baseline. Over-compliance from Phase I carried over into Phase II, but the Phase II targets are not cumulative from the Phase I targets (reduction requirements are cumulative within a phase, but not between phases).

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greenhouse gas and air pollutant. Considered over a 100-year period, it has 298 times more impact per unit mass (global warming potential) than carbon dioxide. SO_2 refers to sulfur dioxide, an oxide of sulfur, and CO_2 refers to carbon dioxide, a common greenhouse gas.

The SWE completed its PY5 report for the first year of Phase II, for the period June 1, 2013 through May 31, 2014. As a result of Phase II programs, when combined with over-performance carry-over from Phase I, the seven EDCs collectively saved 1,019,155 MWh and 202 MW during PY5, attaining 62% of their overall statewide Phase II energy efficiency goals, 73% of statewide low-income energy efficiency goals, and 109% of the governmental, non-profit and institutional (GNI) energy efficiency goals.[9] Total estimated monetary benefits of PY5 of Phase II to date of $559,789 exceeded total estimated costs of $323,209, by $236,580, resulting in a benefit cost ratio of 1.73. Total estimated CO_2 reductions related to PY5 of Phase II were 785,423 tons.

In preparation for Phase III of EE&C programs, the SWE has prepared a draft Demand Response Potential Study,[10] a Commercial and Residential Light Metering Study, Residential and C&I Baseline Studies, and a draft Energy Efficiency Potential Study in order to provide the technical foundation for Phase III energy efficiency and demand response requirements. Commission staff is in the process of finalizing these studies for release to interested stakeholders along with a tentative order establishing these energy efficiency and/or demand response targets for Phase III.

Suggested Improvements to Act 129

Appendix A provides a detailed discussion of suggested amendments to Act 129 previously shared with members of the Legislature (Appendix B contains implementing amendments for these suggestions). Included in these suggestions are various clarifications to the Act to (1) provide a more sound, legal, quantitative basis and criteria for establishing future

[9] An additional 1,028,647 MWh of carry-over from over-performance during Phase I, when combined with the 1,019,155 MWh related to Phase II programs, results in the overall 62% energy efficiency attainment applicable to Phase II requirements.

[10] Demand Response Potential Study Report for Pennsylvania, January 14, 2015.

demand response targets, (2) delay the period necessary to implement future demand response targets, (3) provide more direction as to the continuation of various customer "carve out" requirements implemented subsequent to Phase I, (4) provide the Commission with additional time to review plan submissions, and (5) provide the Commission with greater flexibility in imposing penalties for non-performance (the Commission is required to impose a minimum $1 million penalty on an EDC if requirements are missed, even by 1 MWh):

- Inclusion of "Peak Demand" in many of the sections which reference reductions in "consumption" to clarify that the Act contemplates the potential for ongoing reductions in consumption and peak demand. Corresponding changes in the timing of future demand reductions are also suggested.
- Additional procedural clarifications as they relate to evaluation of costs and benefits, as well as revising or adding requirements for EDC Act 129 plans.
- Clarification that the Commission's program cost effectiveness evaluation will be conducted every five years, and will be based on a projection of benefits and costs, not historical data.
- Provision for additional time for the Commission to approve or disapprove an EDC Act 129 plan.
- Granting the Commission greater flexibility to approve fines up to $20 million, rather than requiring the imposition of a minimum fine of $1 million for what may be very minor violations of a plan.
- Procedural changes to be followed when an EDC fails to achieve its required usage reduction goals.
- Adding an inflation adjustment to the 2% program cost cap to maintain program spending at constant dollar levels.
- Changing the reporting obligation to once every 5 years consistent with current cost/benefit studies conducted on plan cost effectiveness.
- Definitional changes to "Peak Demand" and "Total Resource Cost Test". For the latter, a plan life should be extended beyond 15 years to account for longer-life energy efficiency measures.

PJM Demand Response Filing with the Federal Energy Regulatory Commission and EPA's Proposed Emission Reduction Rules for Existing Power Plants

The Committee should be aware of two developments on federal level that could significantly affect Pennsylvania's demand response programs.

First, PJM Interconnection, L.L.C. (PJM), the regional transmission organization that operates the transmission grid owned by Pennsylvania's EDCs, is attempting to fundamentally alter the manner in which demand response is integrated into PJM energy and capacity markets as a result of a series of lawsuits filed by the Electric Power Supply Association (EPSA)[11] and FirstEnergy Service Company (FES).[12] In *EPSA*, the U.S. Court of Appeals for the D.C. Circuit held that the Federal Energy Regulatory Commission (FERC) lacked jurisdiction over demand response resources voluntarily participating in the energy markets where there is state regulatory authority to regulate such resources. In light of the *EPSA* decision, FES then requested FERC to rule that no demand response be permitted in the capacity markets (FERC has yet to rule on the complaint).

In response to the *EPSA* decision and FES's FERC filing, PJM filed with FERC a proposal that demand response no longer be directly bid into the capacity market. Consequently, the wholesale market equivalent of Act 129's Conservation Service Providers (CSPs) no longer would be able to participate directly on behalf of their end-use customers. The PUC is opposing this filing.

[11] *Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014) (vacating *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, FERC Stats. & Regs. ¶ 31,322 (2011), order on reh'g and clarification, Order No. 745-A, 137 FERC ¶ 61,215 (2011)).

[12] *FirstEnergy Service Co. v. PJM Interconnection, L.L.C.*, FERC Docket No. EL14-55-000 (amended complaint filed Sept. 22, 2014), *available at* http://elibrary.ferc.gov/idmws/search/results.asp. FirstEnergy requested that FERC direct PJM to remove all PJM Tariff provisions that allow or require PJM to compensate demand response providers as a form of supply in the PJM capacity market.

PJM's filing, if successful, would require that wholesale load reductions be bid into the wholesale capacity market by electric generation suppliers (EGSs), electric cooperatives, and EDCs. This may require the PUC to seek statutory authority to ensure that customers can mitigate the cost of capacity in current wholesale markets.

For example, the Commission may need additional authority to direct EGSs and default service suppliers to support customer and Conservation Service Provider (CSP) demand response services. Alternatively, the Commission may need authority to develop and fund more robust state demand response programs to replace the capacity payments lost in the PJM wholesale markets that previously provided the incentive and mechanism for customer participation in three-year forward capacity markets.

Secondly, the U.S. Environmental Protection Agency (EPA) has begun a rulemaking to implement a "Clean Power Plan"[13] which proposes emission guidelines for reducing carbon emissions from existing electric utility generating units. EPA's proposal establishes state-specific "goals" for carbon dioxide emission reductions, and requires states to develop a plan that sets source-specific standards of performance to achieve those goals.

This is pertinent for today's hearing because EPA's proposal anticipates taking advantage of opportunities for lower-emitting generation and reduced electricity consumption, including using and expanding "zero-emitting generation" (additional renewables and nuclear) and increasing demand-side energy efficiency. Cumulative EE reductions of about 1.5% per year would be necessary under the Clean Power Plan (CPP) if we were to match EPA's estimated contribution of EE to achieving statewide carbon emission reductions. Our current potential study estimates annual future electricity consumption reductions under Act 129 equal to 0.9% per year based on the 2% revenue cap given current projections of EE acquisition cost

[13] *Carbon Pollution Emission Guidelines For Existing Stationary Sources Electric Utility Generating Units*, Docket EPA-HQ-OAR-2013-0602.

estimates (i.e., EDC program costs and incentive payments to customers). Thus, if Pennsylvania were to achieve EE reduction levels equal to or better than that assumed by the EPA, it is likely we will need to modify the 2% revenue cap.

If this proposed rule becomes final and is upheld by the courts, the PUC may need to ask the Legislature to modify, extend, or strengthen our current energy efficiency, demand response, and alternative energy statutes.

My Comments on the Provisions of House Bill 129, Printer's No. 585

- Currently under Act 129, in implementing an energy efficiency (EE) and conservation plan, EDCs are prohibited from spending in excess of 2% of their annual revenue. This legislation would remove that cap.

    - *This will provide potentially necessary flexibility to respond to EPA's Clean Power Plan and PJM's Demand Response (DR) program modifications.*

- Allows natural gas and electric distribution companies to recover revenues decreased as a result of reduced energy consumption due to the implementation of an energy efficiency and conservation plan.

    - *These § 2806.3(i)(2) & (3) provisions will increase the cost impact of EE/DR programs on non-participants through a reconciliation mechanism, not just by base rate filings. Utilities will also have more of an incentive to overstate estimated EE/DR savings in order to receive revenues on a current basis.*

      Importantly, Section 1308 general rate cases are specifically designed to compare claimed revenue losses in relation to all revenues and expenses (which individually or together may more than offset the alleged revenue losses). General rate cases, which can last up to nine months, also provide adequate time for testing claims of lost revenues due to implementation of mandated EE&C programs. Section 1307 true-up proceedings do not. I note that leaves § 2806.1(k)(3) in place (allowing for rate case recovery of decreased revenues due to implementation of mandated EE&C programs). The utility should not be given two bites at the apple; it should be able to recover such losses in either a rate case or a reconcilable automatic adjustment clause under § 1307, but not both. Note that § 2806.3((b)(1)((i)(H) mandates recovery of such losses in a § 1307 proceeding. Section 2806.3(i) provides for utility recovery of "reasonable and prudent costs incurred in the provision or management of a plan," which is proper.

      There may be more effective rate adjustment mechanisms for stabilizing revenues for utilities that are losing commodity revenues as a result of energy efficiency measures, weather, or other events, including revenue stabilization adjustments and weather adjustment mechanisms. These types of mechanisms can result in customer credits or charges, depending on the actual increase or decrease in usage.

- Makes Act 129 applicable to natural gas distribution companies. Currently, Act 129 only applies to electric distribution companies;

- Requires that natural gas distribution companies develop and file an energy efficiency and conservation plan by July 1, 2016.

- Requires that natural gas distribution companies reduce demand 1% by May 31, 2018 and 3% by May 31, 2020.

    - *These last three together: good idea.*

Suggestions for needed amendments:

- *Section 2806.3(c) – replace "demand" with "consumption" to make clear that it* intends a 1% reduction in consumption, not demand, which is sometimes meant to *describe peak usage and not annual usage.* To conform them to 66 Pa.C.S. § 2806.1(c)(1) & (2), HB 129's § 2806.3*(c)(1) & (2) would read:*

  (1) By May 31, 2018, total annual weather-normalized consumption of the retail customers of each natural gas distribution company shall be reduced by a minimum of 1%. The 1% ~~demand~~ reduction in consumption shall be measured against the natural gas distribution company's expected ~~demand~~ load as forecasted by the commission for June 1, 2016, through May 31, 2017, with provisions made for weather adjustments and extraordinary ~~demand~~ load that the natural gas distribution company must serve.

  (2) By May 31, 2020, the total annual weather-normalized consumption of the retail customers of each natural gas distribution company shall be reduced by a minimum of 3%. The 3% ~~demand~~ reduction in consumption shall be measured against the natural gas distribution company's expected ~~demand~~ load as forecasted by the commission for June 1, 2016, through May 31, 2017, with provisions made for weather adjustments and extraordinary ~~demand~~ load that the natural gas distribution company must serve.

- *Section (d)(2); after "disapprove a plan", insert "in whole or in part". This would allow parts of a plan to move forward, and other aspects of the plan to be modified and implemented later, without delaying the entire plan. In this same section, Commission staff has indicated that an initial 180-day review period may be necessary under certain circumstances.*

- Modifies the definition of the Total Resource Cost test used in evaluating EE/C plans to include societal costs; changes the maximum timeframe of the test to 20 years (from 15 years).

  - *These are positive changes. I suggest a broadening of Act 129's definition of "Total Resource Cost Test" at § 2806.1(m), even more than House Bill 129 proposes by including societal costs, by deleting the words "of supplying electricity" in that definition. Often, the benefits of EDC energy efficiency investments such as installation of insulation, weatherization (air sealing), vent sealing, etc., are understated because they fail to include the benefits of simultaneous savings in natural gas, oil, and water use. Deleting "of supplying electricity" would permit other economic benefits to be accounted for in the TRC. Also, expanding the test benefit analysis period from 15 years to 20 years is, again, a positive step. Even better would be to expand this to investment life. Insulation, for example, could possibly have a 30 year life.*

I would be happy to answer your questions.

Appendix A

Proposed Legislative Changes to the Energy Efficiency and Conservation Program
66 Pa.C.S. § 2806.1

a) Program

- The term "peak demand" should be added after the term "consumption" whenever subsections (c) and (d) are referenced to make the language consistent with the requirements of both subsections (c) and (d).
- Add a provision requiring procedures for determining cost-effective additional required incremental reductions in consumption, peak demand or both consistent with subsections (c) and (d).
- Add a provision requiring procedures to establish requirements for plans submitted under subsection (b).

b) Duties of electric distribution companies

- Under (b)(1)(i) the term "peak demand" should be added after the term "consumption" whenever subsections (c) and (d) are referenced to make the language consistent with the requirements of both subsections (c) and (d). For example, (b)(1)(i)(A) should read that the plan shall include specific proposals to implement energy efficiency and conservation measures to achieve or exceed the required reductions in consumption and peak demand under subsections (c) and (d).
- Under (b)(1)(ii), add a provision giving the Commission discretion to change the plan requirements under (b)(1)(i)(A)-(K) based on cost-effectiveness, market potential and public interest. This provision will make it clear that the Commission has the discretion to increase or decrease the percent of savings to come from government, educational and nonprofit institutions, based on the cost-effectiveness and market potential for such energy savings. In addition, the provision will make it clear that the Commission can modify the requirements related to low income customers and other underserved customers based on cost-effectiveness, market potential and public interest.
- Under (b)(1)(ii), the term "peak demand" should be added to make it clear that the plans shell set forth the manner in which the company will meet the required reductions in consumption and peak demand as adopted by the Commission under subsections (c) and (d).

c) Reductions in consumption

- Under (3) the language should explicitly require that the determination by the Commission must demonstrate that the benefits of the program will continue to exceed the costs, prior to the Commission adopting additional incremental reductions in consumption. The determination should be forward looking based on costs, benefits and potential for energy savings during the period for which the Commission is setting the additional required incremental reductions in consumption.

d) Peak demand

- Under (2), in the last sentence, the term "consumption" should be replaced with the term "peak demand" to make it consistent with the requirement that the plans shall reduce peak demand.
- Also, under (2), in the last sentence, the date that the reductions are to be accomplished should be moved from no later than May 31, 2017, to no later than May 31, 2018. This change would provide more time for the Commission to set a more rigorous peak demand reduction requirement and the EDCs more time to obtain the resources to meet that more rigorous requirement. We note that with the date change to May 31, 2018, the peak demand reductions will still occur during the summer of 2017. This is due to the fact that the PJM system peak demand occurs in the summer months of June through September, thus, a peak demand reduction requirement that is to be accomplished no later than May 31, 2018, will actually occur from June 1, 2017 through September 30, 2017.

e) Commission approval

- Under (1) the term "peak demand" should be added after the term "consumption" whenever to make the language consistent with the requirements of both subsections (c) and (d).
- Under (2) extend the time period given to the Commission to approve a plan from 120 days of plan submission to 180 days of plan submission. This will give the Commission and all interested parties time to more fully review and propose changes to improve each plan.

f) Penalties

- Under (2) and (2)(i) add the term "peak demand" after the term "consumption" such that it explicitly provides for penalties for an EDC that fails to achieve the reductions in

consumption or peak demand under subsections (c) or (d), so that it is consistent with the requirements of (c) and (d).

- Under (2)(i) give the Commission more discretion to impose penalties that are commensurate with an EDC's failure to meet the required reductions. Under the current language, an EDC is subject to at least a $1,000,000 whether they fail to achieve the reductions by one megawatt-hour or 5,000 megawatt-hours. In addition, the current language is silent on the imposition of penalties for an EDC's failure to achieve 10% of its reductions from government, school districts, institutions of higher learning and nonprofit entities. Finally, the term "peak demand" should be added to make the language consistent with the requirements of subsection (d). The language should be changed such that the EDCs may be subject to a civil penalty not greater than $20,000,000 for a failure to achieve the required reductions in consumption or peak demand under subsections (c) or (d) in a manner prescribed by the Commission.
- Subsection (f)(2)(ii) should be eliminated. Transferring the responsibility to achieve the reductions in consumption under subsections (c) or (d) to the Commission absolves the EDCs of any responsibility for future reductions and the associated penalties for a failure to meet those reductions. It may also cause the implementation of competing programs where the Commission is responsible for the peak demand reductions and the EDC remains responsible for the consumption reduction program in a scenario where an EDC meets the consumption reduction target but fails to meet the peak demand reduction target. The transfer of responsibility will increase the costs associated with running such programs as it will add another layer of administration on top of such programs. These added costs will be borne by the ratepayers. We note that under such a scenario EDCs will still be involved as they have the requisite information about their customers' electricity usage and system capabilities to determine how to best target conservation and demand response measures.

g) <u>Limitation on costs</u>

- The Commission should be given discretion to increase the limitation on plan costs above the current 2% of the EDC's total annual revenue as of December 31, 2006. Such discretion could allow for an increase in plan costs every five years based on the Consumer Price Index or some other benchmark. We note that costs associated with implementing the plans as well as the energy efficiency measures incented by the plans are likely to increase over time due to inflation, technology advancement and market

penetration of energy efficiency measures, among other factors. Having a fixed budget indefinitely will likely decrease the impact and effectiveness of the program over time.

- In addition, the language should be revised to clarify that the total annual average cost of a plan cannot exceed the cap. Again, in order to fully implement the intent of the legislation, the Commission interpreted this cost limitation as an average annual cost over the life of a plan, which can run up to five years. A strict reading of the current language could limit the total cost of a five year plan to the 2% cap amount, resulting in one-fifth of the funds currently funding the plans. Such a result would severely restrict funding of the program which in turn would severely limit the impact and effectiveness of the program.

h) Costs

- No proposed changes.

i) Report

- Under (2) change the requirement for an annual report to the Consumer Protection and Professional Licensure Committee or the Senate and the Consumer Affairs Committee of the House of Representatives to a requirement for a report every five years, consistent with the requirements under subsections (c) and (d) for the Commission to determine the cost-effectiveness of the program.

j) Existing funding sources

- No proposed changes.

k) Recovery

- No proposed changes.

l) Application

- No proposed changes.

m) Definitions

- Change the definition of "electric distribution company total annual revenue" to amounts collected by the electric distribution company for generation, transmission, distribution and surcharges by retail customers. We note that in 2006, some of the EDCs were out from under rate caps and had customers obtaining generation from electric generation suppliers. A strict reading of the current definition could exclude the amounts collected by the EDC for generation and transmission which the EDC forwarded to the EGS serving the customers. This would result in a significant reduction in the

funds available for the program, frustrating the purpose of the program and limiting its impact and effectiveness.

- Revise the definition of “peak demand” to “The period when the load served by an electric distribution company is at or near the highest level expected to occur or capable of occurring during a period.” This definition more accurately reflects the technical meaning of the term, “peak demand.”
- Revise the definition of “total resource cost test” by eliminating the phrase “over the effective life of each plan not to exceed 15 years” and replace it with the phrase “over the effective life of the energy efficiency and conservation measure.” This would allow for a more accurate cost-benefit analysis of measures that have a useful life of greater than 15 years.

Appendix B

Implementing Amendments
for Proposed Legislative Changes
to the Energy Efficiency and Conservation Program
66 Pa.C.S. § 2806.1

a) Program

2806.1(a)(4): An analysis of how the program and individual plans will enable each electric distribution company to achieve or exceed the requirements for reduction in consumption and peak demand under subsections (c) and (d).

2806.1(a)(6): Procedures to make recommendations as to additional measures that will enable an electric distribution company to improve its plan and exceed the required reductions in consumption and peak demand under subsections (c) and (d).

2806.1(a)(9): Procedures to ensure compliance with requirements for reduction in consumption and peak demand under subsections (c) and (d).

2806.1(a)(12): Procedures to evaluate the costs and benefits of the program in each electric distribution company's service territory and to adopt additional required incremental reductions in consumption and peak demand required under subsections (c) and (d).

2806.1(a)(13): Procedures to revise and add requirements for energy efficiency and conservation plans filed by electric distribution companies under subsection (b) based on cost-effectiveness, market potential and the public interest in each electric distribution company's service territory.

b) Duties of electric distribution companies

2806.1(b)(1)(i)(A): The plan shall include specific proposals to implement energy efficiency and conservation measures to achieve or exceed the required reductions in consumption and peak demand under subsections (c) and (d).

2806.1(b)(1)(i)(B): A minimum of 10% of the required reductions in consumption and peak demand under subsections (c) and (d) shall be obtained from units of Federal, State and local government, including municipalities, school districts, institutions of higher education and nonprofit entities.

2806.1(b)(1)(i)(D): The plan shall state the manner in which the plan will achieve the requirements of the program under subsection (a) and will achieve or exceed the required reductions in consumption and peak demand under subsections (c) and (d).

2806.1(b)(1)(ii): A new plan meeting the requirements set forth by the commission in accordance with subsection (a) shall be filed with the commission every five years or as otherwise required by the commission. The plan shall set forth the manner in which the company will meet the required reductions in consumption and peak demand under subsections (c) and (d).

c) Reductions in consumption

2806.1(c)(3): By November 30, 2013, and every five years thereafter, the commission shall evaluate the projected costs and benefits of the program period established under subsection (a) and of approved energy efficiency and conservation plans submitted to the program. The evaluation shall be consistent with the total resource cost test or a cost-benefit analysis determined by the commission. If the commission determines that the benefits of the program exceed the costs for an electric distribution company during the period established by the commission, the commission shall adopt additional required incremental reductions in consumption for that electric distribution company in the established period.

d) Peak demand

2806.1(d)(2): By November 30, 2013, and every five years thereafter, the commission shall compare the total projected costs of energy efficiency and conservation plans implemented under this section to the total projected savings in energy and capacity costs to retail customers in this Commonwealth or other projected costs determined by the commission. If the commission determines that the projected benefits of ~~the~~ an electric distribution company's plan~~s~~ exceed the projected costs for that electric distribution company, the commission shall set additional incremental requirements for reduction in peak demand for the 100 hours of greatest demand or an alternative reduction approved by the commission, for that electric distribution company. Reductions in demand shall be measured from the electric distribution company's peak demand for the period from June 1, 2011, through May 31, 2012.

The reductions in ~~consumption~~ peak demand required by the commission shall be accomplished no later than May 31, 201~~7~~8 and every five years thereafter.

e) Commission approval

2806.1(e)(1): The commission shall conduct a public hearing on each plan and allow for the submission of recommendations by the Office of Consumer Advocate and the Office of Small Business Advocate and by members of the public as to how the electric distribution company could improve its plan or exceed the required reductions in consumption and peak demand under subsections (c) and (d).

2806.1(e)(2): The commission shall approve or disapprove a plan filed under subsection (b) within 1~~2~~80 days of a submission date set by the commission. The following shall apply to an order disapproving a plan:

(i) The commission shall describe in detail the reasons for the disapproval.

(ii) The electric distribution company shall have 60 days to file a revised plan to address the deficiencies identified by the commission. The revised plan shall be approved or disapproved by the commission within 60 days.

f) Penalties

2806.1(f)(2): The following shall apply to an electric distribution company that fails to achieve the reductions in consumption or peak demand required under subsection (c) or (d):

(i) The electric distribution company shall be subject to a civil penalty ~~not less than $1,000,000 and~~ not to exceed $20,000,000 for failure to achieve the required reductions in consumption or peak demand under subsection (c) or (d) or the plan requirements set by the commission under subsection (b). Any penalty paid by an electric distribution company under this subparagraph shall not be recoverable from ratepayers.

(ii) If an electric distribution company fails to achieve the required reductions in consumption or peak demand under subsection (c) or (d), ~~responsibility to achieve the reductions in consumption shall be transferred to the commission. T~~ the commission shall do all of the following:

(A) ~~Implement a plan~~ Set a timeline for the electric distribution company to achieve the required reductions in consumption or peak demand under subsection (c) or (d).

(B) ~~Contract with a conservation service providers as necessary to implement any portion of the~~ Set additional plan requirements as necessary to enable the electric distribution company to achieve or exceed the consumption or peak demand requirements under subsection (c) or (d), which may include requiring the electric distribution company to contract with a conservation service provider to administer the electric distribution company's energy efficiency and conservation plan.

g) Limitation on costs

2806.1(g): Limitation on costs. – The total annual 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 commission may increase the total annual cost of any plan required under this section, provided that such increases are required to obtain additional incremental cost-effective consumption or peak demand requirements, they do not occur more than once every five years and that the increase is not greater than the change in the Bureau of Labor Statistics, PA-NJ-DE-MD Electric Price Index over the preceding five years. The provisions of the paragraph shall not apply to the cost of low-income usage reduction programs established under 52 Pa. Code Ch. 58 (relating to residential low income usage reduction programs).

i) Report

2806.1(i)(2): Beginning five years following the effective date of this section and ~~annually~~ every five years thereafter, the commission shall submit a report to the Consumer Protection and Professional Licensure Committee of the Senate and the Consumer Affairs Committee of the House of Representatives.

m) Definitions

2806.1(m): Definitions.

"Electric distribution company total annual revenue." Amounts ~~paid to~~ collected by the electric distribution company for generation, transmission, distribution and surcharges by retail customers.

"Peak demand." ~~The highest electrical requirement occurring during a specific period~~ The period when the load served by an electric distribution company is at or near the highest level expected

to occur or capable of occurring during a period. For an electric distribution company, the term shall mean the sum of the metered consumption for all retail customers over that period.

"Total resource cost test." A standard that is met if, over the effective life of energy efficiency and conservation measures in 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 and conservation measures.