Bureau of Regulatory Counsel

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PUC Docket No. M-2009-2092222
PUC Docket No. M-2009-2112952
PUC Docket No. M-2009-2112956

Dear Secretary McNulty:

Please find enclosed for electronic filing the Main Brief of the Commonwealth of Pennsylvania, Department of Environmental Protection in the above referenced matter. Copies have been served on all parties listed on the enclosed Certificate of Service.

Sincerely,

/s/ Scott Perry
Scott Perry
Assistant Counsel

Enclosures

cc: Service List
BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION


MAIN BRIEF OF THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION

I. Introduction

Pursuant to the July 8, 2009 Prehearing Order of Administrative Law Judge David A. Salapa, the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") files this main brief in the above captioned matter.

Act 129 of 2008 became effective November 14, 2008 and requires electric distribution companies ("EDCs") with more than 100,000 customers to develop and implement energy efficiency, conservation and peak demand reduction plans in accordance with an Energy Efficiency and Conservation Program developed by the Pennsylvania Public Utility Commission ("Commission"). 66 Pa. C.S. §§ 2806.1 (a),(b) and (l). These plans are to reduce electricity consumption by 1% by May 31, 2011 and 3% by May 31, 2013. 66 Pa. C.S. § 2806.1 (c). Additionally, the plans are to reduce peak demand by 4.5% by May 31, 2013. 66 Pa. C.S. § 2806.1 (d).
Through its Energy Efficiency and Conservation Program Implementation Order at Docket No. M-2008-2069887, the Commission established the process by which the required Act 129 plans would be reviewed and approved and further clarified the requirements of Act 129. The Implementation Order correctly resolved several foundational issues that provide the basis for successful energy efficiency and conservation plans. These critical issues include how the energy conservation and peak demand requirements will be met (the savings vs. reduction issues), the equitable distribution of measures across customer classes, and how much funding is available on an annual basis for plan implementation. While the Commission’s Order laid the necessary foundation for achieving Act 129’s important goals, several issues remain unaddressed. The Department respectfully submits this main brief, in addition to its testimony and comments, to address those unresolved issues.

II. Procedural History


On July 25, 2009 the Commission published a notice of First Energy’s petition in the Pennsylvania Bulletin which required Petitions to Intervene to be filed by July 27, 2009 and answers, comments and recommendations to the EEC Plan to be filed by August 7, 2009. The Department’s petition to intervene, filed July 16, 2009, was granted July 29, 2009.

On August 7, 2009, the Department filed comments and recommendations to First Energy’s EEC Plan with the Commission and also served the testimony of Maureen Guttman on all parties to the proceeding. Evidentiary hearings were held on August 31, 2009 and DEP
Statement 1, the testimony of Maureen Guttman, the Executive Director of the Governor’s Green Government Counsel, was admitted into the record.

III. Description of EDC Plan

First Energy’s EEC Plan includes 15 energy efficiency, conservation, demand response and rate offerings intended to meet Act 129’s energy conservation and peak demand reduction requirements. Petition at 10. The residential programs include the following: 1) home energy audits, 2) appliance turn-in, 3) rebates for HVAC and solar, 4) energy efficient products, 5) new construction, 6) whole building and, 7) low income. \textit{Id.} The non-residential programs include: 1) energy audits and assessments, 2) equipment rebates, 3) performance contracting, 4) motors and variable speed drives, 5) multifamily housing and 6) government and institutional (including federal facilities, street and traffic lighting, state and local governments and schools). \textit{Id.} Finally the plan includes direct load control programs for residential and small commercial customers and a large C/I demand response program. \textit{Id.}

IV. Summary of Argument

The Department’s main brief addresses six legal issues: 1) whether First Energy can claim 100% credit for energy savings achieved by projects jointly funded by Act 129 and the Alternative Energy Investment Act of 2008 (“Act 1”) or the American Reinvestment and Recovery Act (“ARRA”); 2) whether a statewide whole house residential energy conservation program is superior to an EDC by EDC residential conservation program, and therefore in the public interest; 3) whether programs that promote whole building conservation measures in the government/schools/non-profit sector are superior to prescriptive rebate programs that undercut those entities’ ability to participate in guaranteed energy savings contracts, and are therefore in the public interest; 4) whether fuel switching of any kind, including the use of emergency generators
to reduce peak demand, is permissible under Act 129; 5) the extent to which Commission review and approval of changes to EEC Plans is required and; 6) whether the 2% cost cap is an annual cap or a cap on the total costs over the life of the Plans as argued by the various industrial interveners.

The Department maintains that 1) projects funded through Act 1 or ARRA cannot be used to demonstrate compliance with Act 129, unless there is proportionate attribution of the efficiency savings resulting from those funds in relation to the EDC’s contributions, because this will result in inefficient use of ratepayer and taxpayer funds and could jeopardize the Commonwealth’s ability to obtain future funding under ARRA; 2) a statewide whole house residential energy conservation program is preferable to individual EDC programs and is in the public interest because it reduces more energy consumption by redistributing duplicative administrative and marketing costs to installation of conservation measures; 3) promoting whole building conservation measures in the government/ schools/non-profit sector through guaranteed energy savings contracts is preferable to prescriptive rebate programs and is in the public interest because this program ultimately provides more significant energy savings than prescriptive rebate programs for lighting or HVAC replacement; 4) fuel switching is not an “energy efficiency and conservation measure” as defined by Act 129 and the use of emergency generation sources to meet Act 129 peak demand requirements should be prohibited; 5) the Commission must establish a uniform rule for reviewing and approving changes to EEC Plans and; 6) contrary to assertions made by various industrial interveners, the Commission’s Implementation Order properly established the EEC Plan cost cap and should not be challenged.

V. Argument

Act 129, along with Act 1 of 2008 and the Alternative Energy Portfolio Standards Act, represent the Commonwealth’s strong commitment to transforming the way Pennsylvania
generates and uses electricity. The goals of these laudable pieces of legislation cannot be realized, however, unless there is a firm commitment to proper implementation. The Department recognizes that Act 129 established aggressive goals. Therefore, where more cost effective and environmentally beneficial alternatives exist, they must be pursued in order to meet the minimum standards established by Act 129. To that end, the following issues must be addressed if First Energy’s plan is to achieve the goals and purpose of Act 129.

A. Act 129 Conservation and Demand Reduction Requirements

1. Overall Conservation Requirements

N/A

2. Overall Demand Reduction Requirements

N/A

3. Requirements for a Variety of Programs Equitably Distributed

N/A

4. 10% Government/Non-Profit Requirement

Section § 2806.1(b)(1)(i)(B) of Act 129 requires that “[a] minimum of 10% of the required reductions in consumption . . . be obtained from units of Federal, State and local government, including municipalities, school districts, institutions of higher education and nonprofit entities.” To meet this requirement, Metropolitan Edison must reduce consumption in the government/non-profit sector by 44,595.1 megawatt hours by 2013, Pennsylvania Electric by 43,197.9 MWh, and Pennsylvania Power by 14,318.8 MWh. Petition at 8. First Energy anticipates some difficulty meeting these requirements because the government/non-profit sector comprises less than 10% of each company’s annual sales. Met-Ed/Penelec/Penn Power Statement No. 2 at 23.
The Department supports measures in First Energy’s proposal that address street lighting, traffic signals and provide energy audits to schools and county and local buildings (see EEC Plan pages 76-77). However, reliance solely on prescriptive rebates identified in table 5 (pages 7-10) to achieve Act 129’s goals is not in the public interest because these measures fail to provide significant long lasting reductions in energy consumption and impair a government’s ability to participate in guaranteed energy savings contracts.

As stated by the Department’s witness, Maureen Guttman:

“[b]ecause lighting consumes up to 35% of all electricity in a commercial building, lighting efficiency and control upgrades are usually the most cost effective measure to improve energy consumption. The generally quick payback period makes lighting upgrades an integral component of overall building retrofits by offsetting investments in more costly technology that provides longer payback periods. However, lighting upgrades are by nature a short term fix. Deeper and longer lasting energy savings are achieved through the additional measures required in a whole building approach.” DEP Statement 1 at 14.

Ms. Guttman also observed “If one focuses solely on the HVAC system because of an available rebate, an oversized system could be purchased where the building is not evaluated for proper insulation, air sealing and ventilation. This results in not only the consumer spending more on HVAC equipment than necessary because the equipment is larger than needed for a well insulated building but also results in a lost opportunity for the most cost effective energy demand savings.” DEP Statement 1 at 13-14.

The focus on lighting-only or prescriptive rebate projects in government buildings is of particular concern because these projects fundamentally impair a government’s ability to obtain significant long term energy consumption reductions through guaranteed energy savings contracts provided by energy service companies. These contracts are often the only way governments can finance these important energy conservation measures. See, DEP Statement 1 at 15. By

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1 Although the plans provide identical measures, the page numbers vary. For ease of reference, all EEC Plan page references are to Met-Ed’s plan.
eliminating the ability of governments to take advantage of these contracts, the EEC Plan actually contravenes the very purpose of Act 129. *Id.* As such, First Energy’s rebate programs should only be implemented if they are part of a larger whole building conservation program.

5. **Low Income Program Requirements**

N/A

6. **Issues Relating to Individual Conservation and Demand Reduction Programs**

a. **Residential**

**Rebate Programs that can Result in Fuel Switching Should be Prohibited.**

First Energy’s EEC Plan has the potential to unintentionally promote fuel switching from a combustion appliance to an electric appliance (in particular the residential heat pump rebate, the residential and C/I water heater rebates and potentially, the residential whole home program). Such a result completely controverts the very purpose of Act 129 and must be prohibited. Fortunately, resolving this issue is a simple matter. Customers should be required to apply for these rebates and identify the type of fuel source currently being used and only customers who currently use electric appliances should qualify.

b. **Commercial and Industrial**

**Use of Emergency or Back-up Generators to Reduce Peak Demand Should be Prohibited.**

First Energy’s Commercial and Industrial Demand Response Program, described on page 63 of the Plan, has the potential to indirectly address peak demand through the increased use of distributed generation. Using distributed generation to reduce peak demand is not permitted under Act 129. The definitions of both “energy efficiency and conservation measures” and “peak demand” indicate that the only acceptable strategies to reduce peak demand is to reduce overall consumption or shift consumption to non-peak hours. “Energy efficiency and conservation
measures” is defined in relevant part as “the technology, practice or other measure [that] reduces consumption of energy or peak load by the retail customer.” 66 Pa. C.S. § 2806.1(m) (emphasis added). “Peak demand” is defined as “[t]he highest electrical requirement during a specified period.” Id. (emphasis added). Taken together, it is clear that reducing consumption of electricity during the highest specified period simply cannot occur by generating electricity with a behind the meter source other than solar energy (because it is specifically listed as an energy efficiency and conservation measure).

Second, grid demand reduction that is merely replaced by higher emitting distributed generation has negative air impacts, and is an unacceptable strategy for Pennsylvania.² The Department’s regulations were written at a time when emergency generators were only used as back up sources of power – not as distributed generation resources. As such, many of these generators fall outside the Department's regulatory control and are not required to have permits or emission controls. Those that are regulated by the Department may demonstrate regulatory compliance without the need for emission controls. For instance, generators that were constructed prior to July 1, 1972, and that have not undergone modification, are considered existing sources and do not require a plan approval (pre-construction permit) or emission controls. See 25 Pa. Code Section 121.1 (relating to definitions). See also 25 Pa. Code Section 127.1 (relating to purpose). Even if the generator is constructed or modified after July 1, 1972, if it qualifies for an exemption under the Department’s Air Quality Permit Exemptions List, technical guidance document number 275-2101-003, no plan approval or emission controls are required.

Generators constructed after July 1, 1972, and not on the “exemption list” do require a plan approval from the Department. However, if the generator limits its hours of operation to less than

² Although the Department’s witness was not able to answer certain questions concerning the extent to which the Department regulates emergency generators, this issue is a matter of law and is appropriately addressed here.
500 hours per year under its permit, no emission controls are required, since such controls are not considered cost effective. Diesel generators rated greater than or equal to 3,000 horsepower and located throughout Pennsylvania are subject to the emission control requirements under 25 Pa. Code Chapter 145 Subchapter B. However, compliance can be demonstrated through the purchase of allowances without the need to install emission control equipment. Generators rated at greater than 1,000 horsepower and located in the five county Philadelphia area of Philadelphia, Bucks, Chester, Delaware and Montgomery counties are subject to the emission control requirements of 25 Pa. Code Section 129.203 - 204. However, compliance can be demonstrated through the purchase of allowances without the need to install emission control equipment.

As this discussion illustrates, increased use of emergency generators will negatively impact Pennsylvania’s air quality. Because those resources will be deployed when ozone levels are the highest, the detrimental impact to human health could be quite significant and should be avoided.

Proposals for Improvement of EDC Plan

c. Residential

Financial Assistance for a Statewide Whole Home Performance Program is Necessary.

Despite the strong urging of Chairman Cawley and Commissioner Gardner, no EDC proposed a statewide program similar to Keystone HELP. As stated in the Department’s Main Brief in the PECO EEC Plan Petition, the Department believes PECO’s Whole Home Performance program is a model that could serve as the basis for a statewide program. First Energy’s Residential Home Building Comprehensive Program proposes to use blower door energy audits performed by Building Performance Institute certified auditors, which the Department supports. EEC Plan at 50.
The foundation of a successful statewide program – a Home Performance with ENERGY STAR (HPwES) Audit - coupled with the delivery of effective air sealing, insulation and other important energy conservation measures by certified installers will achieve significant, long lasting, and verifiable reductions in energy consumption. First Energy’s Residential Home Building Comprehensive Program is a promising start but more than installation of unidentified “low cost measures”\(^3\) and rebates must be provided. See EEC plan at 50 – 51.

Failure to implement a whole home performance program on a statewide basis is not in the public interest. Absent a uniform statewide approach, a significant amount of ratepayer funds will be wasted on duplicative efforts in the design, administration and marketing of the programs. At the very least, a statewide whole home program will move these overhead expenses into actual program measures as Act 129 intended. At most, the statewide whole home program will deliver the most cost effective, longest lasting and verifiable energy conservation measures available.

d. Commercial

N/A

e. Industrial

N/A

Cost Issues

N/A

CSP Issues

N/A

Implementation and Evaluation Issues

Implementation Issues

\(^3\) These low cost measures appear to be faucet aerators. See EEC Plan at 3.
QA Issues

Active participation by stakeholders and oversight by the Commission will be necessary to ensure high quality performance of the EEC Plan. The Commission and stakeholders must be able to analyze the results of the EEC Plan programs in sufficient detail, and in a timely enough manner, so that if necessary an EDC can reshape its program. To accomplish this goal, First Energy’s EEC Plan should contain a clearly defined stakeholder involvement process. The Department also believes that all EDCs must use the same measurement and verification protocols, ideally those associated with proven, nationally accepted standards such as the data collection protocols of Energy Star Portfolio Manager and Home Performance with Energy Star as proposed in PECO’s EEC Plan.

Monitoring and Reporting Issues

N/A

4. Evaluation Issues

The process by which EDC Plans may be modified outside the annual review period was not specified in the Commission’s Implementation Order. As a result, the EEC Plans contain a variety of proposals under which a plan can be modified without Commission approval. The Department recommends that the Commission establish criteria for when plan changes require Commission approval. The Department offers the following recommendation:

1) No program can be eliminated without PUC approval

2) Up to 10% of the annual budget for a customer class can be shifted within the same customer class without PUC approval.

3) Any shifting of money from one customer class to another requires PUC approval.

Other Issues
The shared purpose of Act 129, Act 1 and ARRA is to promote new or expanded energy conservation programs. If funds from Act 129 and Act 1 or ARRA are used without proper coordination, customers will be over subsidized and the conservation funds will be used in an inefficient manner. This is not to say that energy conservation projects cannot be jointly funded by the Commonwealth and Act 129 Plans. Instead, First Energy and the Commonwealth should coordinate their efforts to provide appropriate incentives to induce consumer behavior and then apportion the energy efficiency “credit” for the resulting savings appropriately.

Equally troubling, the EEC Plan as proposed jeopardizes the Commonwealth’s ability to obtain future funding under ARRA. The Department of Energy (“DOE”) requires States to make a written commitment that certain ARRA funds will not be used to supplant or replace existing projects funded by the state, ratepayers, or other funding. Allowing EDCs to “leverage” ARRA funds and then claim full credit for the energy savings achieved in no way supplements Act 129 – it completely supplants it and threatens to violate the Department’s commitment to DOE. The best solution to achieve the goals of Act 129 and the Department’s responsibility of proper disbursement of ARRA funds is to allow the EDCs to claim an energy efficiency credit that is proportionate to their incentive but that does allow credit for Act 1 or ARRA funds. This result is also in the best interest of the Pennsylvania ratepayers and taxpayers.

The Department is aware that in its Total Resource Cost Test Order, the Commission determined that “[f]or the purposes of TRC testing, if the end-use customer is a recipient of an incentive/rebate from an Act 129 program, even if the customer is also a recipient of an Act 1 incentive or rebate for the same equipment or service, we conclude that the entire savings of that
equipment or service can also be claimed by the EDC for TRC testing purposes.” The plain language of the Order limits the determination to whether a measure is cost effective – not whether projects installed with government funds can be used to determine compliance with Act 129. The Commission must not allow First Energy to use Commonwealth funded projects as a means of complying with Act 129 and to claim full credit for them. The Department’s position is consistent with the Commission’s Order and is in the best interest of Pennsylvania’s ratepayers and taxpayers.

**The Commission Correctly Established the Cap on EEC Plan Costs**

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 re-argued by the various industrial interveners would calculate the total program funding over all years at 2% of the reference year revenues. The industrial interveners’ 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 industrial interveners’ interpretation.

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4 The “Industrial Energy Consumers of PA” provided comments and reply comments to the challenged implementation order and are identical to the various industrial interveners. Their claim that the Implementation Order is somehow not a final order and subject to appeal at a later date is completely without merit.
Finally – and most importantly – the funding cap advocated by the industrial interveners would make the conservation and demand reductions specified in Act 129 impossible to achieve. 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.

VI. Conclusion

For foregoing reasons, the Department respectfully requests that the Commission modify First Energy’s EEC Plan as proposed in the ordering paragraphs provided below.

VII. Proposed Ordering Paragraphs

IT IS ORDERED THAT FIRST ENERGY REVISE ITS EEC PLAN IN THE FOLLOWING MANNER AND RESUBMIT IT FOR APPROVAL WITHIN 60 DAYS OF THIS ORDER

1) Energy savings realized by programs jointly funded through First Energy’s Act 129 program and Act 1 or ARRA shall be apportioned between the funding sources according to the incentive provided by each program.

2) First Energy shall develop a statewide whole home energy conservation program in conjunction with all other EDCs regulated by Act 129, the Department of Environmental Protection and other interested stakeholders. At a minimum, this program shall include a statewide conservation service provider selected by competitive bid that administers and markets the program, Home Performance with ENERGY STAR (“HpwES”) audits, Energy Star Portfolio Manager and HPwES measurement and verification protocols, and installation of air sealing, insulation and other cost effective and appropriate energy conservation measures.

3) First Energy shall provide non-street and traffic lighting rebated programs to government, schools and non-profit entities only in conjunction with a whole building energy conservation program or through a guaranteed energy savings contract.

4) Rebate programs shall affirmatively prevent fuel switching from combustion appliances to electric appliances.

5) Use of backup or emergency generation sources to reduce peak demand is prohibited.
6) First Energy shall develop a stakeholder process for quarterly review of the progress of program implementation and proposed changes to the EEC Plan.

7) No program can be eliminated without approval by the Commission, up to 10% of the annual budget for a customer class can be shifted within the same customer class without Commission approval and any shifting of money from one customer class to another requires Commission approval.

Respectfully submitted,

/S/ Scott Perry

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Dated: September 11, 2009
BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Joint Petition of Metropolitan Edison
Company, Pennsylvania Electric
Company and Pennsylvania Power
Company for Consolidation of
Proceedings and Approval of Energy
Efficiency and Conservation Plans

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document, Main Brief of the Commonwealth of Pennsylvania, Department of Environmental Protection, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant).

SERVICE BY E-MAIL AND FIRST CLASS MAIL

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Dated: September 11, 2009