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January 28, 2013

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor (filing room)
Harrisburg, PA 17120

RE: Petition of PPL Electric Utilities Corporation for Approval of an Energy Efficiency and Conservation Plan - Docket No. M-2012-2334388; **MAIN BRIEF**

Dear Secretary Chiavetta

Enclosed for filing with the Pennsylvania Public Utility Commission is the Main Brief of UGI Penn Natural Gas., Inc. and UGI Central Penn Gas, Inc. ("UGI Distribution Companies") in the above-referenced matter. A copy of the enclosed has been served in accordance with the attached Certificate of Service.

If you have any questions, please advise.

Very truly yours,

Christopher M. Arfaa

Counsel for UGI Distribution Companies

CMA/das
Enclosure
cc: Honorable Dennis J. Buckley
Per Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the parties, listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party).

VIA ELECTRONIC AND FIRST CLASS MAIL

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Dated this 28th day of January, 2013

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan	Docket No. M-2012-2334388

MAIN BRIEF OF
UGI UTILITIES, INC. – GAS DIVISION,
UGI PENN NATURAL GAS, INC.
AND
UGI CENTRAL PENN GAS, INC.

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Dated: January 28, 2013

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Pursuant to 52 Pa. Code §§ 5.501-5.502, UGI Utilities, Inc. – Gas Division, UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. (collectively, the "UGI Distribution Companies" or "UGI"), by and through their counsel, Hawke McKeon & Sniscak LLP, submit their Main Brief in accordance with the Second Prehearing Order dated December 12, 2012 in the above-captioned matter.

I. INTRODUCTION

This proceeding involves review by the Pennsylvania Public Utility Commission (the "Commission") of PPL Electric Utilities Corporation's ("PPL") Petition for approval of PPL's Phase II energy efficiency and conservation plan ("EEC Plan" or "Plan"), filed on November 15, 2012,[1] pursuant to Act 129[2] and the Commission's Phase II Implementation Order.[3] The UGI Distribution Companies have proposed inclusion of fuel switching alternatives in PPL's EEC Plan that will significantly increase electricity savings and increase overall energy conservation, consistent with the goals of Act 129. Moreover, UGI's proposals are far more cost effective under the Total Resource Cost ("TRC") methodology mandated by Act 129 and implemented by this Commission than the corresponding programs proposed by PPL. PPL does not dispute UGI's analysis regarding either the cost effectiveness or the overall energy conservation produced by UGI's proposals. The UGI Distribution Companies therefore respectfully request that the Commission direct PPL to incorporate UGI's proposals into its EEC Plan.

Last March, when the Commission started the stakeholder process leading up to the filing of the Phase II EEC Plans, Chairman Powelson specifically cited fuel switching options as part

[1] Petition of PPL Electric Utilities Corporation for Approval of an Energy Efficiency and Conservation Plan, Docket No. M-2012-2334388 (filed Nov. 15, 2012).

[2] 66 Pa.C.S. §§ 2806.1, 2806.2 (2009).

[3] Implementation Order, *In re: Energy Efficiency and Conservation Program*, Docket Nos. M-2012-2289411 and M-2008-2069887 (Pa. PUC Aug. 3 2012) ("*2012 Implementation Order*").

of the "portfolio of options" that would "allow customers to noticeably reduce their energy bills, keeping money in their pockets."[4] Accordingly, UGI has proposed three targeted improvements to PPL's Plan that would give customers the choice of fuel switching measures. Specifically, UGI proposes: (1) that the incentives offered for installation of heat pump water heaters be made available for installation of natural gas water heaters; (2) that the incentives offered for the installation of air source heat pumps be made available for the installation of natural gas furnaces (in combination with efficient central air conditioning units); and (3) that natural gas Combined Heat and Power (CHP") projects be qualified on the same basis, and afforded the same incentives, as other custom incentive projects under the Plan. The purpose of each of these proposals is to give PPL's customers the option to use natural gas, an abundant, low cost energy source in Pennsylvania, to conserve electricity and reduce their energy bills consistent with Act 129's objectives.

UGI submitted undisputed evidence, using the Commission's own TRC methodology, showing that these fuel switching alternatives are significantly more cost effective and energy efficient than the corresponding components of PPL's Plan. The differences are dramatic:

- The addition of natural gas water heaters to PPL's Low Income WRAP Program ***triples the potential cost effectiveness of the program***.
- The addition of natural gas water heaters to PPL's Residential Retail Program nearly ***doubles the potential TRC benefit/cost ratio*** calculated by PPL.
- The addition of natural gas furnaces to PPL's Residential Home Comfort Program ***more than triples its potential cost effectiveness***.

Despite the undisputed cost and energy efficiency benefits of natural gas, when developing its EEC Plan PPL refused to consider ***any*** fuel switching alternatives for its water heating and home space heating incentive programs, no matter how cost effective. Only at the

[4] Statement of Chairman Robert F. Powelson, *In re: Energy Efficiency and Conservation Program*, Docket No. M-2012-2289411 (March 1, 2012).

rebuttal phase of this proceeding did PPL finally propose a limited "pilot" of fuel switching measures that would permit a mere 100 customers to receive incentives for installing energy efficient natural gas water heaters or furnaces. While this proposal does highlight the relative ease of inserting a fuel switching alternative into its Plan, there is no justification for PPL to limit consumer choice so drastically.

PPL anticipates that during the three year term of its Plan approximately 14,700 of its customers will take advantage of its water heating and space heating incentives. Under PPL's proposed pilot, ***fewer than seven-tenths of one percent*** (0.7%) of these customers will be able to use these pilot program incentives to install energy-saving devices utilizing natural gas. This is not a reasonable proposal. The artificial cap of up to a maximum of 100 rebates over the three year term of the Plan reduces PPL customers' freedom to choose natural gas water heaters and furnaces as a means of reducing their electric bills during the term of PPL's EEC Plan, and it precludes the substantial increases in cost effectiveness and energy efficiency that would be produced by full-fledged programs such as those recommended by UGI. PPL's proposed fuel switching pilot is significant only in that it discredits PPL's insistence that fuel switching "contradicts" the concept of energy efficiency, that it promotes unacceptable "inter-fuel competition," that it is "inequitable" and "discriminatory," and that it is "not possible" to modify one part of PPL's EEC Plan in this proceeding without addressing the impact the modification might have on other parts of the Plan.

The Commission has made it increasingly clear that it takes fuel switching seriously as an effective measure to be included in Act 129 Plans. The Commission conducted a Fuel Switching Working Group and adopted the group's recommendations that cost-effective fuel switching measures should be available to EDCs and their stakeholders, that EDCs should address the design of fuel-switching programs through their stakeholder processes, and that the Bureau of Conservation, Economics and Energy Planning ("CEEP") should develop TRM protocols and changes to the TRC test to accommodate energy efficiency measures involving fuel switching. As a result, the TRM now includes deemed evaluation, measurement and verification protocols for specific energy efficiency measures that involve switching from electricity to natural gas, and the TRC test has been expanded to accommodate fuel switching. In Chairman Powelson's words, energy efficiency measures made possible by fuel switching are now among the "portfolio of options" the Commission has assembled to "allow customers to noticeably reduce their energy bills, keeping money in their pockets."[5]

Therefore, it is no longer appropriate for an EDC to simply not ***consider*** including fuel switching alternatives in its EEC plan, as PPL has done here. Fuel switching options would make PPL's EEC plan significantly more cost effective, conserve significantly more energy, and can be easily done in a way that dramatically increases customer choice. Under these circumstances, it is in the public interest that PPL include fuel switching options in its EEC plan. Furthermore, the Plan's education, awareness and outreach programs must ensure that customers are made aware of the true savings afforded by these options. Finally, to monitor the extent to which PPL's Plan may ***increase*** energy consumption by over-promoting electric measures, PPL's monitoring reports should recount instances when a heat pump rebate has been paid to an existing natural gas customer.

The UGI Distribution Companies respectfully request that the Commission reject PPL's EEC Plan in its present form and direct PPL to:

[5] Statement of Chairman Robert F. Powelson, *In re: Energy Efficiency and Conservation Program*, Docket No. M-2012-2289411 (March 1, 2012).

1. Modify the Residential Retail and Prescriptive Equipment Incentive programs to provide the same $300 incentive available to customers who install an electric heat pump hot water heater to every customer who installs a natural gas water heater with an energy factor ("EF") greater than 67%, the efficiency of an Energy Star® natural gas water heater.

2. Modify the Low-Income WRAP program to install, at no cost to the customer, a natural gas water heater with an EF greater than 67% in homes where natural gas is available.

3. Modify the Residential Retail and Prescriptive Equipment Incentive programs to replace or augment PPL's incentive of $100 for a SEER 15 air source heat pump ("ASHP") with a PPL incentive of $1,400 for the installation of a natural gas furnace with an annual fuel use efficiency ("AFUE") greater than 95%, and a SEER 15 electric central air conditioning unit. PPL shall further modify these programs to replace or augment the incentive provided for installation of a SEER 16 ASHP with a PPL incentive of $2,500 for the installation of a natural gas furnace with AFUE greater than 95% and a SEER 16 electric central air conditioning unit. PPL shall accommodate this modification by (a) lowering participant levels, (b) funding the same participant levels by a reduction in funding to measures with lower cost effectiveness than those proposed by UGI, or (c) a combination of (a) and (b).

4. Modify the customer education, awareness and outreach programs to inform PPL's customers of the true savings that would be achieved by employing natural gas water heating and space heating measures and to give such measures the same level of exposure as other efficient equipment measures.

5. Modify the monitoring and reporting requirements to include instances when an electric heat pump rebate has been paid to an existing natural gas customer.

6. Modify the Custom Incentive Program to (a) provide Combined Heat and Power ("CHP") projects with the same $0.08/kWh incentive based on verified savings that is provided to other projects, and (b) apply to CHP projects the same TRC qualification threshold of 1.0 that is applied to other projects to determine eligibility for incentives under the Custom Incentive Program.

II. PROCEDURAL HISTORY

PPL's Petition for approval of its EEC Plan was filed on November 15, 2012, and published in the *Pennsylvania Bulletin* on December 1, 2012. On December 4, 2012, PPL served the testimony of three witnesses in support of its plan. The UGI Distribution Companies filed a petition to intervene on December 4, 2012, which ALJ Dennis Buckley granted by order dated December 12, 2012, On December 28, 2013, the UGI Distribution Companies served on all parties of record UGI Statement No. 1, the direct testimony of Paul H. Raab, together with UGI Exhibits 1 through 4, which set forth the UGI Distribution Companies' recommendations for improvements to PPL's EEC Plan and demonstrate how those recommendations will aid PPL, and thus the Commission, in implementing Act 129's energy conservation requirements. On January 11, 2013, PPL served its rebuttal testimony.

A hearing was held before ALJ Buckley on January 16, 2013, during which UGI Statement No. 1 and UGI Exhibits 1 through 4 were admitted into the record of this proceeding,[6] as were PPL's EEC Plan,[7] its direct and rebuttal testimonies,[8] and the testimonies of several other intervenors.[9]

III. PPL'S EEC PLAN

PPL's Phase II EE&C Plan proposes to implement thirteen programs to satisfy its Act 129 Phase II obligations. UGI takes no position with respect to many of PPL's proposed programs, including the Appliance Recycling; Residential and Low-Income Energy-Efficiency Behavior & Education; E-Power Wise; Student and Parent Energy-Efficiency; Master Metered Low-Income Multifamily Housing Program; Continuous Energy Improvement Program; and School Benchmarking programs. However, several programs – Residential Retail; Residential Home Comfort; Low-Income WRAP; Prescriptive Equipment Incentive; and Custom Incentive Program – raise the following troubling concerns:

1. The Residential Retail and Low-Income WRAP Programs do not promote the use, among feasible alternatives, of the most energy efficient or cost-effective energy sources in particular applications. Specifically, these programs promote heat

[6] Tr. at 78.

[7] PPL Exhibit No. 1.

[8] PPL Statement Nos. 1, 2, 3, 1R, 3R and 4R; *see* Tr. at 51, 70.

[9] Tr. at 71-77.

pump water heaters, which neither save as much energy nor are as cost-effective as comparable natural gas water heaters.

2. The Residential Home Comfort and Prescriptive Equipment Incentive Programs not only promote air source heat pump technologies that are less efficient and more environmentally harmful than a comparable gas technology, but promote these technologies even though they are ***not cost effective*** under the Commission's TRC Order.

3. The Custom Incentive Program arbitrarily penalizes CHP projects in unsupported discriminatory fashion.[10]

In its rebuttal case, PPL proposed to revise its Plan to include a fuel switching pilot program. The pilot program would offer the rebates provided by its Residential Home Comfort and Prescriptive Equipment Incentive Programs to customers who install efficient gas/oil/propane water heaters and efficient gas/oil/propane central heat with certain efficiency ratings.[11] However, the pilot program as proposed would be available to, at most, 100 customers—that is, fewer than one hundredth of one percent (0.01%) of PPL's 1.4 million ratepayers and fewer than seven-tenths of one percent (0.7%) of the 14,700 customers PPL expects to participate in its electric water heater and heat pump incentive programs. PPL's proposed pilot program would do nothing to remedy the deficiencies in its Plan identified by the UGI Distribution Companies.

IV. SUMMARY OF ARGUMENT

Having petitioned the Commission for approval of its EEC Plan, PPL bears the burden of proof in this proceeding. PPL must prove that its EEC Plan: (a) meets the consumption reduction target and other program requirements set forth in Act 129 and the Commission's implementation orders; (b) is a prudent and cost effective use of ratepayer funds, consistent with

[10] UGI Statement No. 1 at 8-9.

[11] PPL Statement No. 4R at 9.

Pennsylvania's energy policies as established by the General Assembly and the Commission; and (c) is in the public interest.

Although PPL's Plan provides incentives for the installation of energy efficiency measures for water heating and space heating, it does not extend these incentives to natural gas fuel switching measures, despite their superior cost effectiveness and energy efficiency. Instead, the Plan promotes the installation of cost-ineffective or marginally cost effective heat pump water heaters and air source heat pump space heaters. It is undisputed that PPL's exclusion of natural gas water heaters and natural gas furnaces significantly reduces the cost effectiveness, energy efficiency and potential customer savings available under its Plan. PPL's proposed pilot program, which would provide up to a maximum of 100 rebates for water heating and space heating fuel switching measures over the three year term of the Plan, does nothing to remedy this deficiency.

PPL's Plan requires Combined Heat and Power ("CHP") measures to have a higher benefit/cost ratio than other measures in order to be eligible for PPL's Custom Incentive Program, and it provides smaller incentives for verified savings generated by qualified CHP projects than for those generated by other Custom Incentive Program projects. As a result, PPL's Custom Incentive Program does not promote the most cost effective energy conservation measures available, and it provides an incentive for customers to use Act 129 funds for less-efficient projects.

PPL's EEC Plan, as filed, is neither a prudent and cost effective use of ratepayer funds, nor in the public interest. Therefore, the UGI Distribution Companies respectfully request that the Commission disapprove PPL's Plan as filed and direct PPL to:

1. Modify the Residential Retail and Prescriptive Equipment Incentive programs to provide the same $300 incentive available to customers who install an electric heat

pump hot water heater to every customer who installs a natural gas water heater with an energy factor ("EF") greater than 67%, the efficiency of an Energy Star® natural gas water heater.

2. Modify the Low-Income WRAP program to install, at no cost to the customer, a natural gas water heater with an EF greater than 67% in homes where natural gas is available.

3. Modify the Residential Retail and Prescriptive Equipment Incentive programs to replace or augment PPL's incentive of $100 for a SEER 15 air source heat pump ("ASHP") with a PPL incentive of $1,400 for the installation of a natural gas furnace with an annual fuel use efficiency ("AFUE") greater than 95%, and a SEER 15 electric central air conditioning unit. PPL shall further modify these programs to replace or augment the incentive provided for installation of a SEER 16 ASHP with a PPL incentive of $2,500 for the installation of a natural gas furnace with AFUE greater than 95% and a SEER 16 electric central air conditioning unit. PPL shall accommodate this modification by (a) lowering participant levels, (b) funding the same participant levels by a reduction in funding to measures with lower cost effectiveness than those proposed by UGI, or (c) a combination of (a) and (b).

4. Modify the customer education, awareness and outreach programs to inform PPL's customers of the true savings that would be achieved by employing natural gas water heating and space heating measures and to give such measures the same level of exposure as other efficient equipment measures.

5. Modify the monitoring and reporting requirements to include instances when an electric heat pump rebate has been paid to an existing natural gas customer.

6. Modify the Custom Incentive Program to (a) provide Combined Heat and Power ("CHP") projects with the same $0.08/kWh incentive based on verified savings that is provided to other projects, and (b) apply to CHP projects the same TRC qualification threshold of 1.0 that is applied to other projects to determine eligibility for incentives under the Custom Incentive Program.

V. ARGUMENT

A. PPL Bears The Burden Of Proof In This Proceeding

PPL bears the burden of proof as the party seeking affirmative relief from the Commission.[12] PPL must establish its case by a preponderance of the evidence.[13] A

[12] 66 Pa. C.S. §§ 315, 332; *see, e.g., In re: Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216 (Pa. PUC Oct. 26, 2009).

[13] *Samuel J. Lansberry, Inc. v. Pa. PUC,* 578 A.2d 600 (Pa. Cmwlth. 1990), *alloc. denied*, 529 Pa. 654, 602 A.2d 863 (1992).

preponderance of the evidence is established by presenting evidence that is more convincing, by even the smallest amount, than that presented by the other parties to the case.[14] Additionally, this Commission's decision must be supported by substantial evidence in the record. More is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established.[15] While the burden of persuasion may shift back and forth during a proceeding, the burden of proof never shifts. The burden of proof always remains on the party seeking affirmative relief from the Commission.[16]

In this context, this means that PPL must prove that its EEC Plan (a) meets the consumption reduction target and other program requirements set forth in Act 129 and the Commission's implementation orders; (b) is a prudent and cost effective use of ratepayer funds, consistent with Pennsylvania's energy conservation policies as established by the General Assembly;[17] and (c) is in the public interest.[18] UGI has introduced substantial evidence demonstrating that PPL's EEC Plan is not a prudent and cost effective use of ratepayer funds,

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[14] *Se-Ling Hosiery, Inc. v. Margulies,* 364 Pa. 45, 70 A.2d 854 (1950).

[15] *Norfolk & Western Ry. Co. v. Pennsylvania Pub. Util. Comm'n,* 489 Pa. 109, 413 A.2d 1037 (1980).

[16] *Gillette v. PPL Electric Utils. Corp.*, Docket No. F-2011-2266733, 2012 WL 6706635 (Pa. PUC Dec. 20, 2012) (citing *Milkie v. Pa. PUC*, 768 A.2d 1217 (Pa. Cmwlth. 2001)).

[17] Although Act 129 does not expressly require a determination by the Commission that an EEC plan be "prudent and cost effective," 66 Pa. C.S. § 2806.1 is *in pari materia* with 66 Pa. C.S. § 1319(a)(1) of the Public Utility Code, which permits electric utilities that establish conservation programs to recover the costs of those programs only after a Commission determination that the programs are "prudent and cost effective." *See* 1 Pa. C.S. § 1932(a) ("Statutes or parts of statutes are in pari materia when they relate to the same persons or things or to the same class of persons or things.). The General Assembly has directed that "[s]tatutes in pari materia shall be construed together, if possible, as one statute." *Id.* § 1932(b). Therefore, an EDC seeking approval of an Act 129 Plan must demonstrate not only that the plan will meet the conservation criteria set forth in 66 Pa. C.S. § 2806.1, but also that the plan is "prudent and cost effective" as that term is used in 66 Pa. C.S. § 1319(a)(1). *Cf. PUC v. PPL Electric Utilities Corp.*, Docket No. 2010-2161694, 2012 WL 2454198 (Pa. PUC June 21, 2012) ("An interpretation of Section 2806(h) in isolation, without regard to Section 1304, would authorize the Commission to approve unreasonable rate preferences or advantages. That indeed would be a novel interpretation of the Code.").

[18] "It is the Commission's duty to determine the public interest, *Reading & S.S.R. Co. v. Pennsylvania Pub. Util. Comm'n,* 168 Pa.Super. 61, 77 A.2d 102, 104 (1950), and to protect the rights of the public. *Citizens Water Co. v. Pennsylvania Pub. Util. Comm'n*, 181 Pa.Super. 301, 124 A.2d 123, 126 (1956). *See also Bell Telephone Co. v. Driscoll,* 343 Pa. 109, 118, 21 A.2d 912, 916 (1941)." *Duquesne Light Co. v. Pennsylvania Public Util. Comm'n*, 715 A.2d 540, 546 (Pa.Cmwlth. 1998). PPL has acknowledged its burden to establish that approval of its EEC Plan is in the public interest by including public interest averments in its Petition.

and that, absent modification to include the natural gas fuel switching measures proposed by UGI, its approval would not serve the public interest. PPL has failed to rebut UGI's showing. Therefore, PPL has failed to bear its burden of proof, and its Petition for approval of its EEC Plan, absent the modifications proposed by UGI, must be denied.

B. Act 129 Conservation Requirements[19]

7. The UGI Distribution Companies' Proposals For Improvement Of PPL's EEC Plan

Act 129 requires "energy demand and consumption" reductions through the adoption of energy efficiency and conservation measures, which are broadly defined to include "technologies, management practices or other measures employed by retail customers that reduce electricity consumption or demand."[20] "Energy efficiency and conservation measures ***shall include*** . . . energy efficient heating and cooling equipment or systems and energy efficient appliances and other technologies, practices or measures approved by the commission."[21] As Chairman Powelson has explained, the use of fuel sources other than EDC-supplied electricity for consumers' energy needs plays a substantial role in achieving Act 129's energy conservation directives and promoting the economic welfare of Pennsylvania's electric utility customers:

> While an abundance of inexpensive and clean natural gas in Pennsylvania will continue to suppress energy prices, we cannot ignore the importance of empowering Pennsylvanians to take control over their energy usage to reduce their household costs. It is something that is as significant now as it was back in 2008. We have worked aggressively to provide consumers with a portfolio of options such as choosing an electric generation supplier, switching fuel sources, and participating in the EEC programs made possible

[19] The Office of Special Assistants ("OSA") has requested that the parties use a uniform outline for their briefs in this proceeding. UGI takes no position with respect to many of the issues covered by the OSA outline and therefore has omitted those sections from this brief. However, the brief preserves the OSA outline's section numbering for ease of reference and the convenience of the Commission.

[20] 66 Pa.C.S. §§ 2806.1(a), 2806.1(m).

[21] 66 Pa.C.S. § 2806.1(m) (emphasis added).

> by Act 129. These options allow consumers to noticeably reduce their energy bills, keeping money in their pockets. . . . It is essential, however, that any future Act 129 programs are effective uses of consumers' money.[22]

Natural gas measures are clearly key components within the Commission's "portfolio of options" that "allow consumers to noticeably reduce their energy bills, keeping money in their pockets." Natural gas water heaters generally offer the customer lower costs compared to standard electric water heaters and produce overall energy savings in terms of source energy[23] and, in particular, reduce electric energy and demand when used in place of heat pump water heaters.[24] Natural gas furnaces similarly produce significant electric savings over an electric primary heating source.[25] Therefore, in order to ensure that "Act 129 programs are effective uses of consumers' money," EDCs should include fuel switching (conversion from electric to natural gas) for residential space heating and water heating in their EEC plans' incentive programs.

In developing its EEC Plan, PPL did not even ***consider*** including such fuel substitution measures in its water heating and space heating incentive programs.[26] As a result, several of the programs for which PPL will use Act 129 funds will not come close to realizing the far more efficient consumption reductions, cost savings and consumer benefits that can be derived from the employment of fuel substitution measures.[27] PPL has thus failed to deploy ratepayer funds prudently in pursuit of Act 129 reduction goals. It is *undisputed* that PPL's Residential Retail and Low-Income WRAP Programs do not promote the use of the most energy-efficient or cost-

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[22] Statement of Chairman Robert F. Powelson, *In re: Energy Efficiency and Conservation Program*, Docket No. M-2012-2289411 (March 1, 2012).

[23] Pennsylvania Technical Reference Manual at 75 (Pa. PUC June 2013) ("2013 TRM"); UGI Statement No. 1 at 16-18; UGI Exhibit No. 2.

[24] 2013 TRM at 79; UGI Statement No. 1 at 16-18; UGI Exhibit No. 2.

[25] 2013 TRM at 85; UGI Statement No. 1 at 18-21; UGI Exhibit No. 3.

[26] UGI Exhibit No. 4.

[27] UGI Statement No. 1 at 6-30; UGI Exhibit No. 2; UGI Exhibit No. 3.

effective energy sources in particular applications; instead these programs promote heat pump water heaters, which neither save as much energy nor are as cost-effective as comparable natural gas water heaters. It is also *undisputed* that the Residential Home Comfort and Prescriptive Equipment Incentive Programs not only promote electric technologies that are less efficient and more environmentally harmful than a comparable gas technology, but promote those technologies even though they have benefit/cost ratios of less than 1.0 and thus are ***not cost effective*** under the Commission's TRC Order. Finally, the Custom Incentive Program arbitrarily and unreasonably penalizes Combined Heat and Power ("CHP") projects in an unsupported and discriminatory fashion. These flaws in PPL's EEC Plan are thoroughly demonstrated by the analyses performed by UGI witness Paul H. Raab. Although PPL has attempted to explain away or minimize the significance of these flaws, it has not contested the validity of Mr. Raab's analysis or shown any error in his calculations or underlying data. PPL has thus failed to bear its burden of proving its EEC Plan is a prudent, cost effective use of ratepayer funds and in the public interest.

These deficiencies can be quickly remedied by adopting the UGI Distribution Companies' recommendations as set forth in the ordering paragraphs proposed at the conclusion of this brief. UGI's recommendations can be readily integrated into PPL's EEC Plan. In the case of the water heating conversion measure, UGI is merely proposing that another measure be added as an option to the set of electric incentive measures already contemplated by PPL in the Residential Retail and Low-Income WRAP Programs. In the case of the space heating conversion measures, UGI requests that its suggested measures be substituted for, or at least added to, certain of the electric incentive measures contemplated by PPL in the Residential Home Comfort and Prescriptive Equipment Incentive Programs. With respect to CHP, UGI asks only that such projects be qualified on the same basis and afforded the same incentives as other Custom Incentive Program projects. To make these changes effective, UGI requests that the Commission ensure that the Plan's education, awareness and outreach programs make customers aware of the true savings afforded by natural gas energy efficiency measures. Finally, to monitor the extent to which PPL's Plan may ***increase*** energy consumption by over-promoting electric measures, UGI asks that PPL's monitoring reports include instances when a heat pump rebate has been paid to an existing natural gas user.

These changes will provide the same coverage of customer classes and end use sectors as the current Plan; improve the cost-effectiveness of the overall plan; and either result in greater electricity savings than provided by the current plan, or provide the same level of electricity savings at a lower cost to PPL's customers than the current plan.[28] As discussed in the following sections of this brief, these improvements will ensure not only that PPL's EEC Plan achieves the energy consumption reductions required by Act 129 and the Commission's orders within the cost cap established by Act 129, but that it does so in a prudent and cost effective manner that serves the public interest by making effective uses of consumers' money.

a. Residential – The Public Interest Requires PPL's Incentive Programs To Be Modified To Include Natural Gas Energy Efficiency Measures And More Comprehensive Reporting

i. PPL's Heat Pump Hot Water Heater And Air Source Heat Pump Incentives Should Be Extended To Natural Gas Devices

PPL's EEC Plan provides incentives for the installation of electric heat pump water heaters ("HPWH") and high efficiency (SEER 15 and SEER 16) electric air source heat pumps

[28] UGI Statement No. 1 at 15.

("ASHP").[29] However, the use of natural gas for water heating yields almost ***twice*** the electricity savings compared to the HPWH option.[30] Even factoring in the increased natural gas use associated with a natural gas water heater, a program that promotes the installation of natural gas water heaters saves 14% ***more*** energy than PPL's proposed program.[31] The difference in electricity savings generated by installing ASHPs compared to those generated by installing gas furnaces and efficient central air conditioning units is even more stark: substituting the natural gas option for a SEER 15 ASHP produces annual savings of 11,940 kWh as compared to annual savings of 377 kWh under PPL's program, or ***an increase in annual savings of over 3100%***; similarly, substituting the natural gas option for a SEER 16 ASHP produces annual savings of 12,058 kWh as compared to annual savings of 979 kWh under PPL's program, or an increase in annual savings of over 1200%.[32] These tremendous increases in savings more than justify the incentive levels proposed by UGI witness Paul Raab for the installation of natural gas heating options.[33]

The testimony of UGI witness Paul Raab establishes that the HPWH component of PPL's incentive programs is barely cost-effective, and that the inclusion of natural gas water heaters in the programs will substantially increase their cost effectiveness, energy savings, and consumer benefits.[34] The TRC result for PPL's Low Income WRAP Program is a barely cost effective benefit/cost ratio of 1.03. The addition of natural gas water heaters as recommended by the UGI Distribution Companies ***triples*** the potential cost effectiveness of the program, yielding a TRC

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[29] The HPWH incentives are components of the Plan's Residential Retail and Low-Income WRAP programs. The ASHP incentives are components of the Residential Home Comfort and Prescriptive Equipment Incentive Programs.

[30] UGI Statement No. 1 at 9.

[31] UGI Statement No. 1 at 10-11.

[32] UGI Statement No. 1 at 18.

[33] UGI Statement No. 1 at 16-17, 21.

[34] UGI Statement No. 1 at 18; UGI Exhibit No. 2.

benefit/cost ratio of 3.09. As a result, adoption of the UGI Distribution Companies' proposed modification to the Low Income WRAP program will generate ***$1,098,314*** of additional TRC benefits for PPL's customers. Similarly, the inclusion of gas water heaters in PPL's Residential Retail program will produce a TRC benefit/cost ratio (3.09) that is approximately ***double*** that calculated by PPL and generate a potential ***$4,439,540*** of additional TRC benefits for PPL's customers. Neither PPL nor any other party introduced any evidence to rebut Mr. Raab's TRC calculations or savings determinations. Therefore, it is undisputed that the UGI Distribution Companies' recommended modifications to PPL's Low Income WRAP and Residential Retail Programs, if adopted, could generate additional TRC benefits for PPL's customers of ***$5,537,854***, with no change in budget or participation levels.[35]

Mr. Raab's testimony also establishes that the ASHP components of PPL's incentive programs are not even minimally cost-effective and that the inclusion of natural gas furnaces in the programs will substantially increase their cost effectiveness, energy savings, and consumer benefits.[36] The TRC benefit/cost ratio for the SEER 15 ASHP component of PPL's proposed programs is a dismal, cost-ineffective 0.56. In contrast, the substitution of natural gas furnaces (and efficient SEER 15 central air conditioning units) as proposed by UGI produces a TRC benefit/cost ratio at PPL's assumed participation levels that is ***over four times greater*** (2.56) and could generate ***$30,454,878*** of additional TRC benefits for PPL's customers.[37] The results are similar for SEER 16 equipment. The TRC benefit/cost ratio for the SEER 16 ASHP component of PPL's proposed programs is a cost-ineffective 0.66. In contrast, the substitution of natural gas furnaces and SEER 16 air conditioning units as proposed by the UGI Distribution Companies

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[35] UGI Statement No. 1 at 18; UGI Exhibit No. 2.

[36] UGI Statement No. 1 at 20-21; UGI Exhibit No. 3.

[37] UGI Statement No. 1 at 20-21; UGI Exhibit No. 3.

produces a TRC benefit/cost ratio at PPL's assumed participation levels that is ***three times greater*** (2.08) and could generate an additional ***$36,367,431*** of TRC benefits for PPL's customers.[38] As in the case of HPWHs, no evidence was introduced to rebut these calculations or savings determinations, and they are therefore ***undisputed***. Moreover, these calculations are conservative because they do not include the benefits produced by UGI's recommended addition of natural gas furnaces (in combination with efficient electric central air conditioning units) to PPL's Prescriptive Equipment Incentive Program, which will yield additional TRC benefits.[39]

While the Commission's 2012 TRC Order provides that, for Phase II, "the PA TRC Test should continue to be applied at the plan level," the Commission reserved "the right to reject any program with a low TRC ratio, which indicates the program will not be cost-effective."[40] The extremely low TRC ratios of the SEER 15 and SEER 16 ASHP measures make these components of PPL's Plan precisely the type of measure that the Commission should reject, particularly in light of the fact that they require Phase II funding of over $2,000,000 by PPL's customers.[41] As Mr. Raab concluded, "it is not even a close call: the payment of an incentive for the installation of this technology is a bad investment for society and an equally bad investment for PPL's customers."[42]

UGI therefore recommends that the Commission direct PPL to modify its EEC Plan's residential programs (1) to add the installation of an efficient natural gas water heater to the incentives available under the Plan's Residential Retail and Low-Income WRAP Programs to

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[38] UGI Statement No. 1 at 21; UGI Exhibit No. 3.

[39] UGI Statement No. 1 at 21.

[40] *In re: 2012 Total Resource Cost (TRC) Test*, Docket Nos. M-2012-2300653, M-2009-2108601, at 12-13 (Pa. PUC Aug. 30, 2012).

[41] UGI Statement No. 1 at 12.

[42] UGI Statement No. 1 at 12.

those customers who have natural gas service in the home, and (2) to provide an incentive for the installation of a natural gas furnace or boiler in the Residential Home Comfort and Prescriptive Equipment Incentive Programs in place of, or as an alternative to, air source heat pump technologies. These modifications target exactly the same customers segments and end uses that are targeted by the programs as proposed by PPL:[43]

- Residential Retail Program – Under UGI's recommended modification, PPL would provide the same $300 incentive available to customers who install an electric HPWH to every customer who installs a natural gas water heater with an energy factor ("EF") greater than 67%, the efficiency of an Energy Star® natural gas water heater.[44]

- Low-Income WRAP Program – Under UGI's recommended modification to this program, which as drafted by PPL provides a free HPWH to income-qualified customers, PPL would install, at no cost to the customer, a natural gas water heater with an EF greater than 67% in homes where natural gas is available.[45]

- Residential Retail Program and Prescriptive Equipment Incentive Program – Under UGI's recommended modification, PPL's incentive of $100 for a SEER 15 ASHP would be replaced or augmented by a PPL incentive of $1,400 for the installation of a natural gas furnace with an annual fuel use efficiency ("AFUE") greater than 95% and a SEER 15 electric central air conditioning unit. In lieu of, or at least as an alternative to the SEER 16 ASHP measure, PPL would pay an incentive of $2,500 to every customer who installs a natural gas furnace with AFUE greater than 95% and a SEER 16 electric central air conditioning unit.[46]

It will not be enough, however, for PPL to simply modify its program offerings to include the natural gas fuel switching offerings recommended by the UGI Distribution Companies. Its Plan must also support the measures with appropriate outreach, education and awareness efforts, as is applicable to all other measures. Therefore, the Commission should direct PPL to modify its Plan's customer education, awareness and outreach programs to inform PPL's customers of the true savings that would be achieved by employing natural gas water heating and space

[43] UGI Statement No. 1 at 16, 18-19.

[44] UGI Statement No. 1 at 16.

[45] UGI Statement No. 1 at 16.

[46] UGI Statement No. 1 at 18.

heating measures and to give such measures the same level of exposure as other efficient equipment measures.

ii. PPL Has Failed To Prove That Its Exclusion Of Natural Gas Energy Efficiency Measures Is In The Public Interest

PPL does not even attempt to rebut the substantial energy savings and customer benefits that would result from inclusion of natural gas alternatives in its incentive programs. Instead, PPL's opposition to UGI's proposals, presented in the rebuttal testimony of PPL witness Peter D. Cleff, consists of entirely of (a) arguments against the inclusion of ***any*** type of fuel switching conservation measure in ***any*** Act 129 EEC plan and (b) objections to UGI's recommendations that have nothing to do with their merits.[47] None of these arguments withstands scrutiny.

- PPL insists that the UGI Distribution Companies' proposals are "inequitable" because fewer than half of PPL's customers have access to natural gas service, and thus the majority could not take advantage of incentives to convert to natural gas.[48] PPL has consistently taken this position in this proceeding, asserting in a discovery response that "[a]ny significant focus on switching from electricity to gas as an energy conservation measure would, in PPL Electric's view, discriminatory [sic] against electric customers who do not have access to gas service, regardless of whether this measure is cost-effective."[49] Thus, according to PPL, UGI's proposals should be rejected, no matter how cost effective, simply because natural gas service is

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[47] The rebuttal statement of PPL witness Mary Elizabeth Thompson Grassi briefly asserts that the UGI Distribution Companies' recommendations are "tangential" to the "main goal" of developing an EEC plan that suits PPL. (PPL Statement No. 1R at 2, 3.) She goes on to assert that "it is not possible or appropriate to modify one part of the Plan without addressing how those changes impact other portions of the Plan." (*Id.* at 3.) However, Ms. Thompson Grassi provides no evidence that the UGI Distribution Companies' recommendations would adversely "impact" other portions of PPL's EEC Plan. Furthermore, the Act 129 expressly contemplates modification of EDCs' EEC plans to address interested parties' recommendations and individual deficiencies identified by the Commission. *See* 66 Pa. C.S. § 2806.1(e). There is no evidentiary basis in the record of this proceeding to support a finding that individual modifications would adversely affect PPL's EEC Plan.

[48] PPL Statement No. 4R at 5.

[49] UGI Exhibit No. 4.

not available to every customer in PPL's service territory. But the same can be said with respect to every conservation program in PPL's EEC Plan (including PPL's last-minute "Fuel Switching Pilot Program"). In virtually every case there are customers who cannot take advantage of a specific program for some reason – either it is not available or otherwise inapplicable.[50] The fact that each and every program is not available to each and every customer does not make those programs "discriminatory."

- PPL argues that fuel switching is not a "required" component of an EDC's EEC Plan.[51] While this may be technically true, it is also irrelevant. Act 129, Pennsylvania energy policy and the public interest require EDCs' plans to achieve Act 129 energy reductions a prudent manner that makes cost-effective use of consumers' money.[52] Therefore, while fuel switching may not be an absolute requirement for EEC plans under Act 129, the Commission may require an EDC to incorporate fuel switching measures into its EEC plan where, as in this case, doing so would make the plan's conservation programs significantly more cost effective and a better investment of Act 129 funds.

- PPL argues that any change to the Commission's decision not to "mandate" fuel switching programs should be undertaken in a statewide proceeding, not in an individual EDC's Phase II EEC proceeding.[53] This is so, they explain, because the Commission's consideration of the issue would require the Commission to examine the promotion of natural gas conservation by NGDC's.[54] This argument is incoherent. The UGI Distribution Companies have not

[50] For example, customers living in rental units cannot take advantage of rebates for weatherization which apply to home owners, customers who already have new refrigerators and do not have an older refrigerator cannot take advantage of a refrigerator recycling measure, etc. (UGI Statement No. 1 at 23.)

[51] PPL Statement No. 4R at 5.

[52] 66 Pa. C.S. § 2806.1(b)(1)(i)(I); *see id.* § 2806.1(b)(2); *see also* footnote 17, *supra*.

[53] PPL Statement No. 4R at 5-6.

[54] PPL Statement No. 4R at 6.

recommended that the Commission use this proceeding to issue a statewide fuel switching "mandate." They have recommended that the incentives provided by *PPL's* Plan be extended to natural gas-fueled equipment in order to ensure that *PPL's* Plan serves the public interest by maximizing the cost effectiveness, energy savings and consumer benefits *PPL's* customers will receive in exchange for their investment in *PPL's* Plan. PPL's argument, if accepted, would hamstring the Commission's ability to fully implement Act 129's energy policies and to ensure that "any future Act 129 programs are effective uses of consumers' money."[55]

- PPL asserts that fuel switching "contradicts the concept of energy efficiency" by providing an incentive for customers to conserve one energy source by increasing the use of another.[56] This contention flies in the face of the Commission's determination that energy efficiency measures that entail fuel switching may be included in EDCs' EEC plans.[57] The direct end use of natural gas for space and water heating or combined heat and power generation has been widely recognized as providing a substantial energy conservation benefit as well as reducing greenhouse gas emissions by significant amounts, consistent with the objectives of Act 129. This is so because a substantial amount of energy is lost both in the process of converting fuels into electric power and in the transmission and distribution of electric power to end users.[58] Furthermore, as shown below, the ***undisputed*** evidence in this case proves that the natural gas-based measures proposed by the UGI Distribution Companies are far more energy efficient than the corresponding measures proposed by PPL. UGI's proposed fuel switching measures do not "contradict" the concept of energy efficiency – they epitomize it.

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[55] Statement of Chairman Robert F. Powelson, *In re: Energy Efficiency and Conservation Program*, Docket No. M-2012-2289411 (March 1, 2012).

[56] PPL Statement No. 4R at 5.

[57] PPL's assertion also is at odds with PPL's last-minute proposal of a "Fuel Switching Pilot Program."

[58] UGI Statement No. 1 at 27.

- PPL contends that the introduction of fuel switching options into Act 129 plans is inappropriate because it would promote "inter-fuel competition."[59] This, too, is irrelevant to the issue before the Commission. If UGI's proposed fuel-switching measures improve the cost-effectiveness of PPL's conservation programs and generate additional benefits for PPL's customers – and they clearly do – they promote the policies of Act 129 and should be adopted, irrespective of any resulting "inter-fuel competition." Furthermore, the competition generated by retail fuel switching measures is in the public interest. Since natural gas, the cleanest of the fossil fuels, is also increasingly used for power generation because of its superior environmental benefits, the promotion of the direct end use of natural gas for heating or combined heat and power generation not only results in increased efficiency and reduced electric demand resulting in downward pressure in wholesale electric prices consistent with the objectives of Act 129, but can also place downward pressure on wholesale natural gas prices as natural gas that would otherwise be less efficiently used to generate electricity with resulting conversion of line losses is more efficiently used in direct end use applications.[60]

- PPL asserts that UGI's proposals for fuel switching are "incomplete" because they do not discuss what rebates or incentives might be offered by the UGI Distribution Companies to install high efficiency gas appliances or disclose whether those incentives are available to customers who might want to install electric devices instead.[61] Such matters are irrelevant because they have no bearing on the subject of this proceeding – the merits of PPL's EEC Plan under Act 129.

[59] PPL Statement No. 4R at 5.

[60] UGI Statement No. 1 at 27-28.

[61] PPL Statement No. 4R at 5.

- PPL argues that UGI's natural gas-based proposals are deficient because they do not address the issue of other alternative fuels – such as wood, oil and propane – and whether conversions to those fuel sources should receive rebates.[62] Again, PPL's argument is irrelevant: UGI's proposals should be adopted because they are more cost-effective and confer more TRC benefits than PPL's corresponding proposals.[63] Furthermore, while the Commission's TRM specifies savings protocols for natural gas fuel switching measures,[64] it does not do so for the fuels identified by PPL.

- PPL's final justification for categorically excluding conservation measures that involve fuel switching is that "PPL Electric believes that the customer, not PPL Electric, should decide which fuel to use for home heating, water heating, clothes drying, cooking, etc."[65] In other words, PPL "believes" that restricting the incentives available under PPL's programs to energy efficiency measures that use electricity somehow facilitates or preserves PPL's customers' ability to choose measures that use other fuels. This is nonsense. Limiting the availability of incentives to electric devices obviously will reduce customers' incentive and ability to choose alternative-fuel devices, even where, as in this case, they are more energy efficient and cost effective. By contrast, the UGI Distribution Companies' proposals ***promote*** customer choice as part of Act 129 and empower them to take control of their energy costs.

PPL has failed to articulate a coherent reason for excluding fuel switching measures from its EEC Plan. Similarly, PPL has failed to rebut the substantial record evidence showing that

[62] PPL Statement No. 4R at 5.

[63] Moreover, if proposals that provide rebates for equipment using only ***two*** energy sources (PPL-supplied electricity and natural gas) are deficient, then PPL's proposals are even more so because they provide resources for equipment using only ***one*** energy source.

[64] *See* 2013 TRM §§ 2.18 (Fuel Switching: Domestic Electric Hot Water to Gas), 2.19 (Fuel Switching: Heat Pump Water Heater to Gas Water Heater), 2.20 (Fuel Switching: Electric Heat to Gas Heat).

[65] PPL Statement No. 4R at 9; see also PPL Statement No. 1R at 23.

inclusion of natural gas devices in PPL's water heating and home space heating incentive programs as proposed by UGI could significantly increase the cost effectiveness of PPL's Plan and the TRC benefits available to PPL's customers. Therefore, PPL has failed to carry its burden of proving that its EEC Plan is a prudent and cost effective use of ratepayer funds and that its approval – absent modification to include UGI's proposals – would be in the public interest.

iii. PPL's Last-Minute Fuel Switching Pilot Program Does Not Render Its EEC Plan Makes Prudent, Cost Effective Use Of Ratepayer Funds Or Is In The Public Interest.

In developing its EEC Plan, PPL categorically rejected all water heating and space heating energy efficiency measures that involve fuel switching.[66] However, in its rebuttal case, PPL proposed the addition of a "Fuel Switching Pilot Program" to its Residential Home Comfort and Prescriptive Incentive programs.[67] The program is limited to providing rebates to 100 customers (fewer than 0.01% of PPL's 1.4 million ratepayers) who install efficient water heaters or central heat using natural gas, oil or propane.[68]

PPL does not show how its fuel switching pilot program would improve the cost effectiveness of PPL's incentive programs, either pursuant to TRM protocols or otherwise. This is unsurprising: the limitation of the pilot to a maximum of 100 rebates over three years means that its impact on PPL's Plan would be negligible. PPL anticipates that during the term of its Phase II EEC Plan it will provide approximately 14,700 rebates or more to customers who install heat pump hot water heaters and air source heat pumps.[69] The proposed pilot program, if adopted, means that ***fewer than seven-tenths of one percent*** (0.7%) of those energy efficiency

[66] UGI Exhibit No. 4.

[67] PPL Statement No. 4R at 9; PPL Statement No 1R at 5.

[68] PPL Statement No. 4R at 9.

[69] Tr. at 53-54 (cross examination of PPL witness Peter D. Cleff); see UGI Hearing Exhibits 1, 2.

installations will use an alternative fuel such as natural gas. Therefore, any increase in cost effectiveness and customer benefits provided by PPL's incentive programs will be de minimis.

Equally important, PPL has provided no rationale for limiting the choices available to customers who have access to natural gas and wish to install energy efficiency measures. The Commission has already determined that fuel switching is a viable, cost effective EEC measure, as evidenced by the work of the Fuel Switching Working Group and the inclusion of electric to natural gas fuel switching measures in the TRM. Since the merits of electric to natural gas fuel switching have already been proven, there is absolutely no need to test the efficacy of fuel switching through a pilot program. By limiting the number of available fossil fuel rebates to a mere 100 over the three year EEC Plan period, the most cost effective fuel option for water and space heating, natural gas, will be unfairly limited to an extremely tiny subset of PPL's 1.4 million customers. All PPL customers should be provided the ability to select their heating and water heating fuel source from an unbiased list of cost effective options. As Chairman Powelson notes, "we cannot ignore the importance of empowering Pennsylvanians to take control over their energy usage to reduce their household costs."[70]

PPL's pilot proposal cannot provide the cost effectiveness, energy conservation and customer savings afforded by UGI's natural gas water heater and home heating proposals. It does, however, discredit PPL's assertions that fuel switching "contradicts" the concept of energy efficiency, that it promotes unacceptable "inter-fuel competition," that it is "inequitable" and

[70] Statement of Chairman Robert F. Powelson, *In re: Energy Efficiency and Conservation Program*, Docket No. M-2012-2289411 (March 1, 2012).

"discriminatory," [71] and that "it is not possible to modify one part of the Plan without addressing how those changes impact other portions of the Plan."[72]

iv. PPL's Fuel Switching Reporting Should Be Modified.

In approving PPL's Phase I EEC Plan with modifications, the Commission directed PPL to report the frequency of customers switching to electric appliances from gas appliances. While PPL is reporting instances where fuel switching has occurred, it is not clear that PPL's reporting effort captures all instances of fuel switching. For example, if the rebate provided an incentive for the installation of a heat pump in place of an air conditioning unit, gas load has been *displaced* even if the gas furnace has not been *replaced* completely by the heat pump, and this displacement can have significant energy efficiency consequences for the customer's entire heating load.[73] It's not possible to determine a full and complete TRC evaluation of the unintended impacts of gas to electric fuel switching as a result of EEC program offerings without this detailed reporting data.

In contrast, the Commission has directed the First Energy Companies to undertake a far more comprehensive reporting effort. The First Energy Companies were required to "track appropriate data regarding fuel switching, in coordination with the Statewide Evaluator, including at least the following: (1) type of appliance or equipment being replaced; (2) the availability of natural gas at the customer's location or immediate area; and, (3) whether electric

[71] PPL Statement No. 4R at 5.

[72] PPL Statement No. 1R at 3.

[73] UGI Statement No. 1 at 28.

appliances or equipment were installed in areas where natural gas is available."[74] UGI recommends that this more comprehensive reporting be ordered for PPL.[75]

b. Commercial – PPL's Custom Incentive Program Should Provide The Same Qualification Requirements and Incentives For CHP Projects As Other Types Of Custom Projects.

PPL's Custom Incentive Program unreasonably discriminates against combined heat and power ("CHP") projects in two ways. First, while other types of projects qualify for the incentive if they have a TRC ratio of 1.00 or greater, CHP projects must have a TRC ratio of 1.25.[76] Second, for all eligible projects ***except*** CHP projects, PPL will provide an incentive of $0.08 per kWh based on verified savings; for CHP projects, PPL will provide only $0.05 per kWh.[77] By imposing a greater burden on CHP projects, PPL's EEC Plan discourages investment in proven energy efficient natural gas technologies relative to other energy efficiency investments and supply side resources. Act 129, however, requires that each EEC plan provide a variety of energy efficiency and conservation measures equitably to all classes of customers. By discouraging projects that involve fuel switching, the PPL Custom Incentive Program thwarts Pennsylvania's energy conservation policy as adopted by the General Assembly and implemented by the Commission.

Unreasonably burdening CHP projects also contravenes federal energy policy. Executive Order No. 13,624, issued by President Obama on October 30, 2012, identifies CHP as one of the

[74] *In re: 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*, Docket Nos. M-2009-2092222, M-2009-2112952, M-2009-2112956 at 129, 130, 132 (Pa. PUC Oct. 28, 2009).

[75] UGI Statement No. 1 at 28-29. PPL asserts that these additional reporting and tracking requirements are unwarranted. (PPL Statement No. 4 at 17-18.) However, this assertion is contradicted by the Commission's decision to impose similar requirements on the First Energy Companies.

[76] UGI Statement No. 1 at 13. The application of a TRC qualification hurdle of 1.25 to CHP measures stands in stark contrast to PPL's acceptance of TRC values as low as 0.12 in order to promote installation of electric technologies such as ASHPs.

[77] UGI Statement No. 1 at 13.

key components within a broader energy efficiency policy targeting the industrial and manufacturing sectors.[78] The Order establishes a national goal of 40 gigawatts of new combined heat and power capacity by 2020,[79] a 50% increase from today.[80] Meeting this goal will save energy users $10 billion per year, result in $40 to $80 billion in new capital investment in manufacturing and other facilities that create American jobs, and reduce emissions equivalent to 25 million cars.[81]

UGI therefore recommends that the Commission direct PPL to modify its EEC Plan so that CHP projects are treated in an identical manner to other measures that would be eligible for funding under the Custom Incentive Program, by (a) providing for an equivalent $0.08/kWh incentive (rather than a lower and discriminatory $0.05/kWh incentive) and, (b) applying a TRC qualification threshold of 1.0 (rather than a higher and discriminatory 1.25 level). There should be no budget impact from this modification. This Plan improvement will simply induce more CHP projects to be considered and ultimately developed in the PPL service territory.[82]

PPL has failed to articulate a rational reason for the discriminatory treatment of CHP technology under its EEC Plan. PPL first asserts that the different treatment is justified because of purported "uncertainties" in calculating energy savings.[83] This is incorrect. PPL's Custom Incentive Program restricts the payment of incentives to instances where a project produces

[78] Accelerating Investment in Industrial Energy Efficiency, Exec. Order No. 13,624, 77 Fed. Reg. 54779 (Sept. 5, 2012) (available at http://www.whitehouse.gov/the-press-office/2012/08/30/executive-order-accelerating-investment-industrial-energy-efficiency).

[79] 77 Fed. Reg. at 54780.

[80] UGI Statement No. 1 at 14.

[81] UGI Statement No. 1 at 14-15.

[82] UGI Statement No. 1 at 15-16.

[83] PPL Exhibit No. 1 at 118, 134; PPL Statement No. 4R at 15-16.

"verified savings."[84] If PPL cannot verify savings, no incentive is awarded. Therefore, if a CHP project's savings are too uncertain to be verified, it will not receive a rebate. PPL's concern only makes sense if PPL has paid, or anticipates paying, incentives for savings that it cannot verify, in violation of its Plan's requirements.[85] Furthermore, there is no evidence that the energy savings generated by CHP projects are any more or less uncertain than any other custom projects. Therefore, there is no basis to support a finding that the savings produced by CHP programs are any more uncertain than the savings produced by other types of custom projects.

PPL attempts to justify the reduced incentive provided for CHP projects by asserting that CHP would otherwise consume an inordinate portion of the budget for PPL's Custom Incentive Program.[86] However, this is only a concern if CHP projects produce less energy conservation and customer cost benefits. If CHP projects produce more energy savings and customer cost reductions than other types of custom projects, it would be a waste of PPL customer money to use the Custom Incentive Program funds to provide greater incentives for the latter, less effective projects. Reducing the per kWh incentive for CHP projects will incent customers to choose other types of custom projects, not because they are more efficient than CHP, but because PPL's incentive levels artificially reduce their cost to the end user. As a result, funds budgeted to the Custom Incentive Program will tend to be used to install less efficient devices. This is clearly not in the public interest. It is the policy of this Commonwealth to promote energy conservation, and providing customers with an artificial incentive to select less efficient custom projects thwarts this policy.

[84] PPL Exhibit No. 1 at 102.

[85] UGI Statement No. 1 at 14.

[86] PPL Statement No. 4R at 16-17.

PPL has thus failed to prove that its discriminatory treatment of CHP projects in its Custom Incentive Program makes prudent, cost effective use of ratepayer funds or is in the public interest. However, if PPL's Custom Incentive Program is modified to provide CHP projects the same access to the same rebates that it provides to other types of projects, customers will choose custom energy conservation projects based on their anticipated cost savings, thus promoting Act 129's conservation and cost reduction goals.

VI. CONCLUSION

For all of the foregoing reasons, the UGI Distribution Companies respectfully request that the Commission disapprove PPL's EEC Plan as filed and direct PPL to incorporate UGI's recommended modifications into a revised plan.

VII. PROPOSED ORDERING PARAGRAPHS

IT IS ORDERED that PPL's Phase II EEC Plan, as filed, is hereby DISAPPROVED, for the reasons stated above; and

IT IS FURTHER ORDERED:

1. That PPL shall modify its Residential Retail and Prescriptive Equipment Incentive programs to provide the same $300 incentive available to customers who install an electric heat pump hot water heater to every customer who installs a natural gas water heater with an energy factor ("EF") greater than 67%, the efficiency of an Energy Star® natural gas water heater.

2. That PPL shall modify its Low-Income WRAP program to install, at no cost to the customer, a natural gas water heater with an EF greater than 67% in homes where natural gas is available.

3. That PPL shall modify its Residential Retail and Prescriptive Equipment Incentive programs to replace or augment PPL's incentive of $100 for a SEER 15 air source heat pump ("ASHP") with a PPL incentive of $1,400 for the installation of a natural gas furnace with an annual fuel use efficiency ("AFUE") greater than 95%, and a SEER 15 electric central air conditioning unit. PPL shall further modify these programs to replace or augment the incentive provided for installation of a SEER 16 ASHP with a PPL incentive of $2,500 for the

installation of a natural gas furnace with AFUE greater than 95% and a SEER 16 electric central air conditioning unit. PPL shall accommodate this modification by (a) lowering participant levels, (b) funding the same participant levels by a reduction in funding to measures with lower cost effectiveness than those proposed by UGI, or (c) a combination of (a) and (b).

4. That PPL shall modify the Plan's customer education, awareness and outreach programs to inform PPL's customers of the true savings that would be achieved by employing natural gas water heating and space heating measures and to give such measures the same level of exposure as other efficient equipment measures.

5. That PPL shall modify the Plan's monitoring and reporting requirements to include instances when an electric heat pump rebate has been paid to an existing natural gas customer.

6. That PPL shall modify its Custom Incentive Program to (a) provide Combined Heat and Power ("CHP") projects with the same $0.08/kWh incentive based on verified savings that is provided to other projects, and (b) apply to CHP projects the same TRC qualification threshold of 1.0 that is applied to other projects to determine eligibility for incentives under the Custom Incentive Program.

Respectfully submitted,

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