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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 Metropolitan Edison Company, Petition of Pennsylvania Electric Company, and Petition of West Penn Power Company - Docket Nos. M-2012-2334387, M-2012-2334392 and M-2012-2334398; **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 Elizabeth H. Barnes
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 E-MAIL AND FIRST CLASS MAIL

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Dated this 28th day of January, 2013

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Metropolitan Edison Company for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan	Docket No. M-2012-2334387
Petition of Pennsylvania Electric Company for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan	Docket No. M-2012-2334392
Petition of West Penn Power Company for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan	Docket No. M-2012-2334398

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 Scheduling Order dated December 28, 2012 in the above-captioned matter.

I. INTRODUCTION

This proceeding involves review by the Pennsylvania Public Utility Commission (the "Commission") of the Phase II energy efficiency and conservation plans (EEC Plans or Plans) filed on November 13, 2012 by Metropolitan Edison Company ("Met-Ed"), Pennsylvania Electric Company ("Penelec") and West Penn Power Company ("West Penn") (collectively, "FirstEnergy," the "FirstEnergy Companies" or the "Companies") (and Pennsylvania Power Company ("Penn Power")),[1] pursuant to Act 129[2] and the Commission's Phase II Implementation Order.[3] The UGI Distribution Companies have proposed the inclusion of fuel switching alternatives in the FirstEnergy Companies' EEC Plans that could increase the electricity savings produced over the life of the Plans by **1.25 <u>Billion</u> kilowatt hours (1,250,000,000 kWh), or an additional seventeen percent (17%) over the proposed Plan's total 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, yielding between

[1] The UGI Distribution Companies have not intervened in Penn Power's Act 129 proceeding because the Penn Power and UGI service areas do not overlap. The UGI Distribution Companies have not analyzed the Penn Power EEC Plan and take no position on its merits. References to FirstEnergy, the FirstEnergy Companies and the Companies in this brief do not refer to Penn Power.

[2] 66 Pa. C.S. §§ 2806.1 and 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*").

$12.2 million and $15.8 million in customer benefits over and above those produced by the FirstEnergy Companies' Plans as filed. The FirstEnergy Companies do not dispute UGI's analysis regarding either the cost effectiveness or the overall energy savings produced by UGI's proposals. The UGI Distribution Companies therefore respectfully request that the Commission direct the FirstEnergy Companies to incorporate UGI's proposals into their EEC Plans.

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 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 the FirstEnergy Companies' Plans that would give customers the fuels switching choice of natural gas as an energy efficiency measure for space and water heating. Specifically, UGI proposes that the Plans be modified to: (1) allow for the installation of a natural gas water heater in those programs that promote the installation of energy efficient water heating technologies as an additional qualifying measure; (2) provide an incentive for the installation of a natural gas furnace or boiler in those programs that promote the installation of energy efficient space heating technologies as an alternative to, or in addition to, air source heat pumps; and (3) eliminate the payment of incentives to promote ground source heat pump installations, unless the company can both (a) demonstrate the cost-effectiveness of this measure using consistent assumptions across all customer sectors and (b) redesign the program to eliminate free-ridership. The purpose of the third proposal is to ensure that the FirstEnergy Companies' Act 129 funds are spent for their intended purpose of reducing electricity consumption. The purpose of the first two proposals is

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

to give the FirstEnergy Companies' customers the option to use natural gas to conserve electricity and achieve greater reductions in their energy bills.

UGI submitted undisputed evidence, using the Commission's own TRC methodology, showing that its proposed fuel switching alternatives are significantly more cost effective and energy efficient than the corresponding ***non***-cost effective components of the FirstEnergy Companies' EEC Plans. As illustrated by the effect of adding a natural gas option to the water heating promotion and space heating incentive components of the FirstEnergy Companies' programs, the potential differences are dramatic:

Promotion	Company	Aggregate TRC benefit/cost ratio without natural gas	Aggregate TRC benefit/cost ratio with natural gas	Net additional customer TRC benefits from addition of natural gas
Water Heating (Ex. UGI-2)	Met-Ed	0.41	1.97	$2,265,506
	Penelec	0.45	2.01	$1,907,703
	West Penn	0.37	1.78	$2,507,596
	Total			$6,680,805
SEER 15 Air Source Heat Pump (Ex. UGI-3)	Met-Ed	0.61	1.72	$4,225,762
	Penelec	0.46	1.88	$3,116,902
	West Penn	0.50	1.36	$1,836,053
	Total			$9,178,717
SEER 16 Air Source Heat Pump (Ex. UGI-4)	Met-Ed	0.61	1.35	$2,720,668
	Penelec	0.47	1.51	$2,308,278
	West Penn	0.50	1.04	$494,500
	Total			$5,523,446

In every case, the FirstEnergy Companies' proposals are not cost effective under the Commission's TRC methodology, and UGI's recommended changes are cost effective using the same methodology. The contrast could not be more striking.

In addition, as noted above, UGI's recommendations would increase the potential electricity savings under the FirstEnergy Companies' Plans by **1.25 Billion kilowatt hours**. Yet despite the undisputed cost and energy efficiency benefits of natural gas, the FirstEnergy Companies refused to consider ***any*** fuel switching alternatives when developing the water heating and home space heating components of their incentive programs, no matter how cost effective.

While the Commission has so far declined to mandate fuel switching measures, it has made it increasingly clear that it takes fuel switching seriously as an alternative for Act 129 Plans. The Commission convened a Fuel Switching Working Group and adopted the group's recommendations, including 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) be directed to 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 another fuel source, and the TRC test has been expanded accordingly. 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 empower Pennsylvanians "to take control over their energy usage to reduce their household costs."

Therefore, it is no longer appropriate for an EDC to simply refuse even to ***consider*** including fuel switching alternatives in its EEC plan, as the FirstEnergy Companies have done here. Where, as in these cases, fuel switching options would make an EEC plan significantly more cost effective, conserve significantly more energy, and can be easily done in a way that dramatically increases customer choice, the public interest requires an EDC to include those fuel switching options in its EEC plan and, in addition, to raise their customers' awareness of the benefits of those options in their education, awareness and outreach programs.

The FirstEnergy Companies' EEC Plans are deficient not only because they do not include fuel switching alternatives that reduce energy consumption, but also because their rebates for the installation of high efficiency heat pumps may actually be ***increasing*** electricity load. Therefore, the UGI Distribution Companies also recommend that the Commission require the FirstEnergy Companies to amend their Plans to prohibit the payment of incentives where fuel switching from *natural gas* to *electric* could result.

Accordingly, the UGI Distribution Companies respectfully request that the Commission reject the FirstEnergy Companies EEC Plans in their present form and direct to modify their respective Plans to:

1. Provide the same incentive as the FirstEnergy Companies proposed for efficient water heating measures 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. Provide in lieu of, or as an alternative to, the ASHP measure: (a) an incentive payment of $1,400 to every residential customer who installs a natural gas furnace with an annual fuel use efficiency (AFUE) greater than 95% and a SEER 15 electric central air conditioning unit; and (b) an incentive payment of $2,500 to every residential customer who installs a natural gas furnace with an AFUE greater than 95% and a SEER 16 electric central air conditioning unit. The FirstEnergy Companies 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, (c) funding through the use of eliminated ground source heat pump program budget funds, or (d) a combination of (a), (b) and (c).

3. Eliminate the payment of incentives to promote ground source heat pump installations.

4. Prohibit the payment of incentives where fuel switching from natural gas to electric could result.

5. Inform their customers of the true electricity savings that would be achieved by employing natural gas water heating and natural gas space heating measures and shall give such measures the same exposure as other efficient equipment measures in their Phase II education, awareness and outreach programs.

II. PROCEDURAL HISTORY

The FirstEnergy Companies and Penn Power filed a joint petition for consolidation and approval of their respective Act 129 Phase II EEC Plans together with supporting statements on November 13, 2012. Notice of the filing was published in the *Pennsylvania Bulletin* on December 1, 2012.[5] The UGI Distribution Companies filed a petition to intervene on December 4, 2012. Since UGI's service area does overlap Penn Power's service area, the UGI Distribution Companies' petition to intervene was limited to the proceedings concerning the Met-Ed, Penelec and West Power EEC Plans. The proceedings were assigned to Administrative Law Judge Elizabeth H. Barnes, who convened a prehearing conference on December 19, 2012. On December 28, 2012, ALJ Barnes issued a Scheduling Order that, among other things, consolidated the FirstEnergy and Penn Power proceedings for hearings and granted UGI's petition to intervene.

On January 8, 2013, the UGI Distribution Companies timely served on all parties of record UGI Statement No. 1, the direct testimony of Paul H. Raab, together with UGI Exhibits 1 through 6, which set forth the UGI Distribution Companies' recommendations for improvements to the FirstEnergy Companies' EEC Plans and demonstrate how those recommendations will aid

[5] 42 Pa. Bulletin 7372 (Dec. 1, 2012).

the Companies, and thus the Commission, in implementing Act 129's energy conservation requirements.[6]

A hearing was held before ALJ Barnes on January 17, 2013, during which UGI Statement No. 1 and Exhibits UGI-1 through UGI-6 were admitted into the record of this proceeding,[7] as were the FirstEnergy Companies' EEC Plans and supporting statements, and the statements of several other intervenors. During the hearing, counsel for the FirstEnergy Companies informed ALJ Barnes that a partial settlement had been reached with respect to most issues, and a proposed settlement term sheet was admitted into the record. The proposed partial settlement does not address the issues raised by the UGI Distribution Companies. ALJ Barnes set a deadline of January 28, 2013 for a fully executed Joint Petition for Settlement and statements in support to be filed by the signatory parties.

III. THE FIRSTENERGY COMPANIES' EEC PLANS

The FirstEnergy Companies propose to implement nine programs to satisfy their Phase II Act 129 requirements. The programs (which address all customer classes, including the government sector) include: Appliance Turn-In; Residential Home Performance; Residential Energy-Efficiency Products; Low-Income; Energy Efficient Equipment Programs for small and large commercial and industrial customers; Energy Efficient Buildings Programs for small and large commercial and industrial customers; and a Governmental and Institutional Program.

The Appliance Turn-In program provides rebates to consumers for turning in a working refrigerator, freezer, or room air-conditioner. The Residential Home Performance Program provides energy efficiency education and awareness along with measures and incentives for

[6] Several of the UGI exhibits are marked "confidential" because they contain information that the FirstEnergy Companies initially designated as proprietary. Counsel for the FirstEnergy Companies subsequently informed counsel for UGI that the information was not proprietary. Therefore, the UGI exhibits may be publicly disclosed.
[7] Tr. at 52.

customers to conserve energy in their homes, and the Residential Energy-Efficiency Products Program provides rebates to consumers and financial incentives and support to retailers and manufacturers that sell energy efficient products, such as HVAC equipment, appliances, lighting, home electronics and other products. The Low-Income Program provides basic to comprehensive whole house measures, through direct mail or direct installation, and educates customers about their home's energy use and ways to save energy in low-income households. The Energy Efficient Equipment Programs for small and large commercial and industrial customers provides financial incentives (prescriptive and performance) and support to customers directly, or through trade allies, for purchasing and installing energy efficient equipment and products. The Energy Efficient Buildings Programs for small and large commercial and industrial customers provides financial incentives and support to customers for implementing building shell or system improvements. Other delivery mechanisms include incentives towards audits and kits and audits with direct installation of measures targeted at small business. Finally, the Governmental and Institutional Program provides financial incentives and support to Governmental & Institutional customers for the installation of energy efficient equipment and products.

The FirstEnergy Companies express concerns in joint petition and their individual plan filings, as well as in the direct testimony of Mr. John C. Dargie,[8] that the Companies will have difficulty meeting the Phase II consumption reduction benchmarks established by the Commission. In addition, on August 20, 2012, the FirstEnergy Companies and Penn Power petitioned for an evidentiary hearing on the Phase II energy efficiency benchmarks established by the Commission, asserting that the goals for energy reductions set by the Commission for

[8] FirstEnergy Statement No. 1.

Phase II are too high and should be lowered.[9] On December 5, the Commission entered an opinion and order denying the petition and affirming the energy efficiency benchmarks challenged by the Companies.[10] In view of the relatively low cost effectiveness of the FirstEnergy Companies' energy efficiency incentives, this problem appears to stem from poor program selection rather than any inherent defect in the benchmarks.[11] The FirstEnergy Companies have selected a mix of programs that clearly favor small, incremental gains in the efficiency of electric appliances. Adoption of programs that completely eliminate the use of electricity for space heating and water heating purposes, where appropriate, will help the FirstEnergy Companies to achieve the Commission's Phase II consumption reduction benchmarks and would improve the cost-effectiveness of the overall plans.[12] The UGI Distribution Companies demonstrate how this can be easily accomplished through the modification of certain of the FirstEnergy Companies' specific programs.

IV. SUMMARY OF ARGUMENT

The FirstEnergy Companies bear the burden of proof as the parties seeking affirmative relief from the Commission. Each of the FirstEnergy Companies therefore must prove that its EEC Plan not only (a) meets the consumption reduction target and other program requirements set forth in Act 129 and the Commission's implementation orders; (b) is prudent and cost

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[9] Opinion and Order, *In re: Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company for an Evidentiary Hearing on the Energy Efficiency Benchmarks Established for the Period June 1, 2013 through May 31, 2016*, Docket Nos. P-2012-2320450, P-2012-2320468, P-2012-2320480, P-2012-2320484, at 8 (Pa. PUC Dec. 5, 2012).

[10] *Id.* at 22.

[11] In their comments filed in Docket No. M-2012-2289411, the UGI Distribution Companies addressed this very issue, urging the Commission to be "mindful of the potential bias of EDCs for programs favoring incremental gains in the efficiency of electric appliances, rather than programs eliminating the use of electricity for certain heating purposes, and should consider taking a more proactive role in making sure that the most cost-effective programs for consumers are selected." (UGI Statement No. 1 at 10 (quoting UGI Distribution Comments at 6).)

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

effective, consistent with Pennsylvania's energy conservation policies as established by the General Assembly; and (c) is in the public interest.

UGI has introduced substantial evidence showing that that the FirstEnergy Companies' Plans are neither prudent nor cost effective, and that, absent the inclusion of natural gas energy efficiency measures such as those proposed by UGI and the elimination of certain wasteful components, approval of the Plans would not be in the public interest. The FirstEnergy Companies have failed to rebut UGI's showing. Therefore, the Companies have failed to bear their burdens of proof, their petitions for approval of their EEC Plans as filed must be denied, and they should be directed to re-file their plans modified to:

1. Provide the same incentive as the FirstEnergy Companies proposed for efficient water heating measures 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. Provide in lieu of, or as an alternative to, the ASHP measure: (a) an incentive payment of $1,400 to every residential customer who installs a natural gas furnace with an annual fuel use efficiency (AFUE) greater than 95% and a SEER 15 electric central air conditioning unit; and (b) an incentive payment of $2,500 to every residential customer who installs a natural gas furnace with an AFUE greater than 95% and a SEER 16 electric central air conditioning unit. The FirstEnergy Companies 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, (c) funding through the use of eliminated ground source heat pump program budget funds, or (d) a combination of (a), (b) and (c).

3. Eliminate the payment of incentives to promote ground source heat pump installations.

4. Prohibit the payment of incentives where fuel switching from natural gas to electric could result.

5. Inform their customers of the true electricity savings that would be achieved by employing natural gas water heating and natural gas space heating measures and shall give such measures the same exposure as other efficient equipment measures in their Phase II education, awareness and outreach programs.

V. ARGUMENT

The FirstEnergy Companies bear the burden of proof as the parties seeking affirmative relief from the Commission.[13] Each FirstEnergy Company must establish its case by a preponderance of the evidence.[14] A 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.[15] 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.[16] 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.[17]

In this context, this means that each of the FirstEnergy Companies must prove that its EEC Plan not only (a) meets the consumption reduction target and other program requirements set forth in Act 129 and the Commission's implementation orders; (b) is prudent and cost effective, consistent with Pennsylvania's energy conservation policies as established by the

[13] 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. P.U.C. Oct. 26, 2009).

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

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

[16] *Norfolk & Western Ry. Co. v. Pa. PUC,* 489 Pa. 109, 413 A.2d 1037 (1980).

[17] *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)).

General Assembly;[18] and (c) is in the public interest.[19] UGI has introduced substantial evidence showing that that the FirstEnergy Companies' Plans are neither prudent nor cost effective, and that, absent the inclusion of natural gas energy efficiency measures such as those proposed by UGI and the elimination of certain wasteful components, approval of the Plans would not be in the public interest. The FirstEnergy Companies have failed to rebut UGI's showing. Therefore, the Companies have failed to bear their burdens of proof, and their petitions for approval of their EEC Plans, absent the modifications proposed by UGI, must be denied.

A. The UGI Distribution Companies' Proposals for Improvement of the FirstEnergy Companies' EEC Plans

1. Proposed Fuel Switching Measures

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

[18] 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.").

[19] "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 Utility Comm'n*, 715 A.2d 540, 546 (Pa. Cmwlth. 1998). The FirstEnergy Companies have acknowledged their burden to establish that approval of their EEC Plans is in the public interest by including public interest averments in their joint petition.

[20] 66 Pa. C.S. § 2806.1(a), (m).

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 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 is clearly an important part of the "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.

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

[22] Statement of Chairman Robert F. Powelson, *Secretarial Letter Seeking Comments on Planning Issues for Act 129 Energy Efficiency and Conservation Programs after May 31, 2013,* Docket No. M-2012-2289411 (March 1, 2012).

[23] Pennsylvania Technical Reference Manual at 75 (Pa. PUC June 2013) ("2013 TRM").

[24] 2013 TRM at 79; UGI Statement No. 1 at 20-24; Exhibit UGI-2.

[25] 2013 TRM at 85; UGI Statement No. 1 at 24-28; Exhibits UGI-3, UGI-4.

In developing their EEC Plans, the FirstEnergy Companies did not even ***consider*** including such fuel substitution measures in their water heating and space heating incentive programs.[26] As a result, several of the programs for which the FirstEnergy Companies will use budgeted Act 129 funds will not come close to realizing the immediate consumption reductions, cost savings and consumer benefits that can be derived from the employment of fuel substitution measures:[27]

- It is *undisputed* that the FirstEnergy Companies' programs that promote the installation of energy efficient water heating technologies do not promote the use of the most energy-efficient or cost-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 *undisputed* that the FirstEnergy Companies' programs that promote the installation of energy efficient space heating technologies not only promote heat pump 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.
- It is *undisputed* that the FirstEnergy Companies' programs that promote the installation of ground source heat pumps are cost-ineffective and promote free ridership.

[26] Exhibit UGI-5.
[27] UGI Statement No. 1, *passim*; Exhibits UGI-2, UGI-3, UGI-4.

- It is *undisputed* that the FirstEnergy Companies have failed to collect and report data sufficient to determine whether their Plans permit fuel switching from *natural gas* to *electric* that *increase* electricity consumption.

Although the FirstEnergy Companies may attempt to explain away or minimize the significance of these flaws, they have not introduced any evidence to rebut the testimony of UGI expert witness Paul Raab, nor have they contested the validity of his analysis or shown any error in his calculations or underlying data. The FirstEnergy Companies have thus failed to bear their burdens of proving their EEC Plans are prudent and cost effective and in the public interest.

The deficiencies in the FirstEnergy Companies' EEC Plans can be quickly remedied by making the five changes recommended by the UGI Distribution Companies as set forth in UGI's proposed ordering paragraphs.[28] These improvements will not only improve the FirstEnergy Companies' ability to achieve the energy consumption reductions required by Act 129 and the Commission's orders within the cost cap established by Act 129, but also ensure that they do so in a prudent manner that serves the public interest by promoting the most cost effective energy efficiency measures and making "effective uses of consumers' money."

i. The public interest requires modification of the FirstEnergy Companies' EEC Plans (a) to allow for the installation of a natural gas water heater in those programs that promote the installation of energy efficient water heating technologies, and (b) to provide an incentive for the installation of a natural gas furnace or boiler instead of an air source heat pump in those programs that promote the installation of energy efficient space heating technologies.

The FirstEnergy Companies' EEC Plans provide incentives for the installation of unspecified "energy efficient" electric water heaters[29] and unspecified, but presumably "high

[28] *See infra*, p.27.

[29] See UGI Statement No. 1 at 12.

efficiency" electric air source heat pumps (ASHP).[30] However, the use of natural gas for water heating results in over ***three times*** the electricity savings compared to the FirstEnergy Companies' "energy efficient" option.[31] Similarly, although the Companies did not provide sufficient information in either their filings or their responses to data requests to determine the cost-effectiveness of their specific space heating measures, assuming they intend to promote ASHPs, which have TRC ratios ranging from a cost-ineffective 0.11 to a slightly better yet still cost-ineffective 0.71, it is obvious that the payment of incentives for the installation of this technology is a bad investment for society and an equally bad investment for the FirstEnergy Companies' ratepayers.[32] The substitution of natural gas boilers for ASHPs would make the FirstEnergy Companies' space heating incentives many times more energy efficient and cost effective: substituting the natural gas option for a SEER 15 ASHP will produce annual per-participant savings of 11,428 kWh for Met-Ed customers, 13,741 kWh for Penelec customers and 11,399 kWh for West Penn customers, compared to annual savings of 581 kWh, 589 kWh and 605 kWh under each Company's respective program, or ***an increase in potential annual savings of almost 2000%***.[33]

The FirstEnergy Companies' professed concerns about their ability to meet Act 129's consumption reduction targets[34] underscore the cost-ineffectiveness of the electric water heating and ASHP measures their Plans promote. As UGI witness Paul Raab stated during his cross examination, the UGI Distribution Companies' proposed addition of natural gas measures will

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[30] See UGI Statement No. 1 at 15.

[31] UGI Statement No. 1 at 13.

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

[33] UGI Statement No. 1 at 24.

[34] FirstEnergy Statement No. 1; *see also* Opinion and Order, *In re: Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company for an Evidentiary Hearing on the Energy Efficiency Benchmarks Established for the Period June 1, 2013 through May 31, 2016*, Docket Nos. P-2012-2320450, P-2012-2320468, P-2012-2320480, P-2012-2320484, at 8 (Pa. PUC Dec. 5, 2012).

generate total additional electricity savings of up to ***1.25 Billion kilowatt hours*** (1,250,000,000 kWh) over the life of the FirstEnergy Companies' Plans.[35] In order to put this number in context, it can be compared to the savings that the FirstEnergy Companies estimate that their Plans as filed will generate, which can be found in Appendix C of each Company's Plan. For example, Met-Ed estimates that their Plan will generate lifetime savings of 746,550 MWh in the Residential Sector.[36] From this estimate and Met-Ed's estimated lifetime savings in its other customer segments, it can be seen that Met-Ed estimates total lifetime energy savings as a result of implementing their proposed Plan of 2,461,387 MWh. Similarly, the Penelec Plan reports estimated lifetime savings of 2,216,429 MWh and West Penn reports estimated lifetime savings of 2,707,794 MWh, for a total estimated lifetime savings for all three Plans of 7,385,610 MWh. Thus, **the incremental savings from the UGI recommended programs will increase the electricity savings effectiveness by almost 17%,** which in turn will improve the FirstEnergy Companies' ability to meet Act 129's requirements and provide their ratepayers with a meaningful return on their investment in energy conservation.

UGI therefore recommends that the Commission direct the FirstEnergy Companies to modify their EEC Plans as follows:

- Water Heating Measures – Provide the same incentive as the FirstEnergy Companies proposed for efficient water heating measures 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.[37]

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[35] Tr. at 67 (cross examination of UGI witness Paul H. Raab).

[36] Joint Company Exhibit No. 1, Attachment A (Met-Ed Plan) at Appendix C, Page 5.

[37] UGI Statement No. 1 at 21. As an alternative, First Energy could increase the incentive for natural gas water heaters to reflect the additional savings (and efficiency gains) resulting from conversions to natural gas water heating, and if necessary increase the budget for this program to accommodate the increased incentives. Given First Energy's stated concern regarding the difficulty of meeting Phase II reduction targets (see FirstEnergy Statement No. 1), adjusting its program budgets to provide incremental funds for a very cost effective option should help alleviate this concern. (UGI Statement No. 1 at 21-22.)

- <u>Space Heating Measures</u> – Provide in lieu of, or as an alternative to, the ASHP measure: (a) an incentive payment of $1,400 to every residential customer who installs a natural gas furnace with an annual fuel use efficiency (AFUE) greater than 95% and a SEER 15 electric central air conditioning unit; and (b) an incentive payment of $2,500 to every residential customer who installs a natural gas furnace with an AFUE greater than 95% and a SEER 16 electric central air conditioning unit.

The testimony of Mr. Raab establishes that the electric water heating component of the FirstEnergy Companies' incentive programs is not even close to 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. Mr. Raab's analysis for Met-Ed indicates that the company's proposed water heating incentives will fund the installation of significantly ***cost-ineffective*** measures, with an overall TRC benefit/cost ratio for all customer sectors of 0.41. In comparison, the installation of natural gas water heating will be significantly cost effective, with an overall TRC benefit/cost ratio of 1.97 at Met-Ed's same assumed participation levels. Each customer segment will benefit, and, if adopted, UGI's proposed modification could generate additional TRC benefits for Met-Ed's customers of up to $2,205,506, with no change in budget or participation levels. [38] Similarly, if Penelec modifies its plan to allow natural gas water heaters to qualify for its water heating incentive, the TRC benefit/cost ratio for this measure will increase from a cost-ineffective 0.45 to a cost-effective 2.01, yielding up to $1,907,703 in additional TRC benefits for Penelec customers.[39] The TRC benefit/cost ratio for West Penn's water heating measure will increase from a dismal 0.37 to 1.78, yielding additional TRC benefits of up to $2,507,696.[40]

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[38] UGI Statement No. 1 at 22-24; Exhibit UGI-2 at 1.
[39] Exhibit UGI-2 at 2.
[40] Exhibit UGI-2 at 3.

Mr. Raab's testimony also establishes that the space heating components of the FirstEnergy Companies' incentive programs are significantly ***cost-ineffective*** and that the inclusion of natural gas furnaces in the programs will substantially increase their cost effectiveness, energy savings, and consumer benefits.[41] Exhibit UGI-3 demonstrates the increase in cost effectiveness and customer TRC benefits produced by replacing electric space heating measures with high efficiency natural gas furnaces and SEER 15 electric central air conditioners. The overall TRC benefit/cost ratio across all customer sectors for Met-Ed's space heating incentives is 0.61, indicating overall cost-ineffectiveness. In contrast, replacing electric space heating with natural gas space heating and a SEER 15 electric central air conditioner produces a significantly ***cost-effective*** overall TRC benefit/cost ratio of 1.72 at Met-Ed's assumed participation levels. Through this simple program change, Met-Ed's Plan could generate additional TRC benefits for its customers of up to $4,255,762.[42] Similarly, adoption of the UGI Distribution Companies' proposal will, in the case of SEER 15 measures, increase the overall TRC benefit/cost ratio of Penelec from 0.46 to 1.88 and create additional customer TRC benefits of up to $3,116,902.[43] In West Penn's case, the change will increase this measure's overall TRC benefit/cost ratio from 0.50 to 1.36 and create additional customer TRC benefits of up to $1,836,053.[44] Exhibit UGI-4 shows that similar increases in cost effectiveness will result if the FirstEnergy Companies' space heating incentives are used to fund conversions to natural gas space heating in combination with SEER 16 electric central air conditioners. This change will result in additional TRC benefits for the FirstEnergy Companies' customers of $5,523,446.[45]

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[41] UGI Statement No. 1 at 26-28; Exhibit UGI-3.
[42] UGI Statement No. 1 at 26-27; Exhibit UGI-3 at 1.
[43] Exhibit UGI-3 at 2.
[44] Exhibit UGI-3 at 3.
[45] UGI Statement No. 1 at 27; Exhibit UGI 4.

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.[46]

Despite the fact that the UGI Distribution Companies proposed the adoption of fuel switching measures during the stakeholder process leading to the development of the FirstEnergy Companies' Phase II EEC plans, it is clear that Met-Ed, Penelec and West Penn did not consider including such measures in their Plans.[47] When asked in discovery whether they considered or evaluated fuel substitution as a means of electric load reduction, the FirstEnergy Companies sole response was: "No. The Companies do not agree with using ratepayer funding to solely promote the use of natural gas."[48] This illustrates a fundamental deficiency in the FirstEnergy Companies' approach to energy conservation and compliance with Act 129 as implemented by the Commission.

The FirstEnergy Companies' categorical refusal to consider fuel substitution proposals, even where they are more fuel efficient than other FirstEnergy programs, is not consistent with the direction the Commission has provided in the Act 129 dockets. The Commission has made considerable efforts since the Phase I docket to quantify the efficiencies of fuel switching through the Fuel Switching Working Group and to develop a framework for evaluating fuel switching.[49] Failure to give any consideration to fuel switching in an EE&C Plan would appear to render these important efforts null and void.[50]

The FirstEnergy Companies' failure to consider fuel switching when developing their EEC Plans also is at odds with federal energy policy. The U.S. Department of Energy's

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[46] UGI Statement No. 1 at 25, 28.

[47] UGI Statement No. 1 at 29-30.

[48] Exhibit UGI-5. The FirstEnergy Companies apparently do not have a similar concern with using ratepayer funding to promote the use of electricity.

[49] UGI Statement No. 1 at 33-35.

[50] UGI Statement No. 1 at 30.

"Statement of Policy for Adopting Full-Fuel Cycle Analyses into Energy Conservation Standards Program" states:

> [T]he U.S. Department of Energy (DOE) intends to modify the methods it uses to estimate the likely impacts of energy conservation standards for covered products on energy use and emissions and will work to expand the energy use and emissions information made available to consumers. Specifically, DOE intends to use full-fuel-cycle (FFC) measures of energy use and emissions, rather than the primary (or site) energy measures it currently uses.[51]

As Mr. Raab testified, the direct end use of natural gas for space and water heating or combined heating and power generation has been widely recognized as providing a significant 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 significant amount of energy is lost in the process of converting fuels into electric power and because of the significant loss of power that occurs through electric transmission and distribution line losses. 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 heating 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. Adoption of the full fuel cycle approach allows a utility to explicitly recognize and capture these benefits.[52] Moreover, adoption of the full fuel cycle approach will drive significant economic benefits to locations which are rich in natural gas shale reserves, such as Pennsylvania.

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[51] Proposed Rule, Energy Conservation Program for Consumer Products and Certain Commercial and Industrial Equipment: Statement of Policy for Adopting Full-Fuel-Cycle Analyses Into Energy Conservation Standards Program, 76 Fed. Reg. 51281-82 (Aug. 18, 2011).

[52] UGI Statement No. 1 at 35-36.

Therefore, it is incumbent upon EDCs to consider including fuel switching alternatives in developing their EEC plans. Where, as in these cases, fuel switching options would make EEC plans significantly more cost effective, conserve significantly more energy, and can be easily done in a way that dramatically increases customer choice, the public interest requires an EDC to include those fuel switching options in its EEC plan.

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."[53] The extremely low, cost-ineffective TRC benefit/cost ratios of the electric water heating and electric space heating components of the FirstEnergy Companies' incentive programs show that they are precisely the type of measure that the Commission should reject, particularly in light of the FirstEnergy Companies' concern that their Plans will not achieve the energy conservation reductions required by Act 129.

The FirstEnergy Companies have failed to articulate a coherent reason for excluding fuel switching measures from their EEC Plans. Furthermore, they have failed to rebut the substantial evidence showing that inclusion of natural gas measures in the water heating and space heating incentive programs as proposed by UGI would significantly increase the cost effectiveness of the FirstEnergy Companies' Plans and the TRC benefits available to their customers. Therefore, the FirstEnergy Companies have failed to carry their burden of proving that their EEC Plans are prudent and cost effective and that their approval – absent modification to include UGI's proposals – would be in the public interest.

[53] *Re: 2012 Total Resource Cost (TRC) Test*, Docket Nos. M02012-2300653, 2009-M-2108601, at 12-13 (Aug. 30, 2012).

While the deficiencies of the FirstEnergy Companies' incentives programs can be easily remedied by adopting UGI's proposals, it will not be enough for them to simply modify their program offerings to include natural gas measures. They must also support the measures with appropriate education, awareness and outreach efforts, on an equal footing with all other measures in their Plans. In adopting the UGI Distribution Companies' recommendations, the Commission should underscore the need for this important support component as well. To ensure that the FirstEnergy Companies' communications efforts are effective and accurate, the Commission should direct them to inform their customers of the true savings that would be achieved by employing these recommended changes and to give measures involving fuel switching the same exposure as other efficient equipment measures in their Phase II education, awareness and outreach programs.[54]

ii. The public interest requires modification of the FirstEnergy Companies' EEC Plans to eliminate the payment of incentives to promote ground source heat pump installations that are not cost-effective and encourage free-ridership.

The FirstEnergy Companies' Plans include incentives to promote the installation of Ground Source Heat Pumps (GSHP). As Mr. Raab testified, these programs are problematic for two reasons. First, the assumptions used to evaluate the GSHP offerings do not appear to be correct, or at the very least, do not appear to be consistent across customer segments. The FirstEnergy Companies assumed a much lower cost for this measure in the SCI, LCI and GNI sectors than in the Residential sector, which does not appear reasonable considering that a similar investment for a GSHP will be required by all customers. Furthermore, cost-effectiveness evaluations of the GSHP measure using the assumptions for the residential sector result in TRC benefit cost ratios of only 0.06, while the TRC results show that the measure is

[54] UGI Statement No. 1 at 29.

cost effective using the assumptions for the other sectors. The poor residential TRC result is consistent with the Commission's own analysis, presented in the Market Potential Study, which show ***negative*** TRC results for the FirstEnergy Companies for this measure. As a conservation measure, GSHP is the ***worst*** of all measures evaluated by the Commission's study, and yet the FirstEnergy Companies' are requesting that their ratepayers make this ill-advised investment.[55]

Second, the promotion of this measure appears to encourage free-ridership, particularly in the Residential sector. The incentive amounts to only 6% of the $10,000 that consumers who install a GSHP will be required to pay for an investment that, based on poor TRC results, will never pay off. While consumers will still purchase these heating devices for a variety of reasons, economics is clearly not one of them. Ratepayer money thus will very likely be provided to consumers who would have made this purchase decision whether or not the incentive existed. Therefore, most, if not all participants, are very likely to be free riders.[56] Paying rebates to customers for something they would do in the absence of an incentive is hardly a prudent use of ratepayer money, and EEC plans that do so clearly are not in the public interest.

The FirstEnergy Companies introduced no evidence that rebuts Mr. Raab's evaluation of the GSHP measure. Therefore, it should be eliminated from their Phase II Plans, and the funds budgeted for GSHP incentives used to fund efficient natural gas fuel switching measures.

iii. The public interest requires modification of the FirstEnergy Companies' EEC Plans to prohibit the payment of incentives where fuel switching from natural gas to electric could result.

As UGI has consistently argued, an unintended consequence of certain energy efficiency and conservation programs could be to encourage increased electricity usage in Pennsylvania rather than discourage or decrease it. This can occur where incentives paid to encourage the

[55] UGI Statement No. 1 at 17-18.
[56] UGI Statement No. 1 at 18-19.

purchase of higher efficiency appliances of a particular fuel type lower the life cycle costs of appliances of that fuel type (in this case electric) and inadvertently cause consumers to switch to a less efficient fuel (this being electric rather than gas).[57]

The switch is bad for three reasons. First, the fuel switching that is most likely to occur is for space heating applications, particularly heat pumps that will continue to rely on natural gas as a backup heating source but will utilize electricity as a heating source during moderately cold periods. This action will force the natural gas utilities into the role of backup suppliers, ultimately increasing costs to all for this more specialized service. Second, the increased reliance on electricity as a heating source will result in the increased consumption of electricity, in direct conflict with the stated objectives of the Commission and the legislature. Finally, the increased reliance on electricity as a heating source at the expense of natural gas can be demonstrated to result in less energy efficiency overall.[58]

In approving their first EEC Plans, the Commission ordered the FirstEnergy Companies to report the frequency of customers switching to electric appliances from gas appliances.[59] Although they have only partially complied with this directive, Mr. Raab determined that the data that the FirstEnergy Companies have reported indicate that their current rebates, which encourage the installation of "high efficiency" heat pumps, may actually be ***increasing***

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[57] UGI Statement No. 1 at 37.

[58] UGI Statement No. 1 at 37-38.

[59] Opinion and Order, *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 and M-2009-2112956, at 129-130 (ordering paragraphs 10, 19) (Aug. 28, 2009) ("*Met-Ed/Penelec Phase I Order*"); Opinion and Order, *Petition of West Penn Power Company d/b/a Allegheny Power for Approval of its Energy Efficiency and Conservation Plan, Approval of Recovery of its Costs through a Reconcilable Adjustment Clause and Approval of Matters Relating to the Energy Efficiency and Conservation Plan,* Docket No. M-2009-2093218 at 52, 104 (ordering paragraph 9) (Pa. PUC Oct. 23, 2009) ("*West Penn Phase I Order*").

electricity load.[60] According to his analysis, the net result of the FirstEnergy Companies' heat pump rebates may have been an increase in electricity consumption of between 1,425,471 kWh per year (assuming all SEER 15 ASHPs)[61] and 1,322,207 kWh per year (assuming all SEER 16 ASHPs).[62]

These results are based on a number of assumptions that were necessary because the FirstEnergy Companies' either do not collect or do not report all of the information that the Commission required to allow the Commission and the Statewide Evaluator to accurately estimate the impact of the potential fuel switching described above.[63] The FirstEnergy Companies were ordered 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 appliances or equipment were installed in areas where natural gas is available."[64] Because there is no evidence that the FirstEnergy Companies' are collecting the required information, and the data that they have provided indicate that their rebate programs may have already resulted in significant increases in electricity consumption, the UGI Distribution Companies recommend that the Commission prohibit the payment of incentives where fuel switching from natural gas to electric could result.

[60] UGI Statement No. 1 at 36-37. Mr. Raab's quantification of the impact of the FirstEnergy Companies' air source heat pump rebates is set forth in Exhibit UGI-6. A detailed explanation if his analysis appears at pages 38-40 of UGI Statement No. 1.

[61] Exhibit UGI-6, sch. 1.

[62] Exhibit UGI-6, sch. 2.

[63] UGI Statement No. 1 at 40.

[64] *Met-Ed/Penelec Phase I Order* at 129, 130 (emphasis added); *West Penn Power Phase I Order* at 52 (emphasis added).

VI. CONCLUSION

For all of the foregoing reasons, the UGI Distribution Companies respectfully request that the Commission disapprove the FirstEnergy Companies' EEC Plans as filed and direct Met-Ed, Penelec and West Penn to incorporate UGI's recommended modifications into their respective revised plans.

VII. PROPOSED ORDERING PARAGRAPHS

IT IS ORDERED that the EEC Plans of Met-Ed, Penelec and West Penn, as filed, are hereby DISAPPROVED, for the reasons stated above; and

IT IS FURTHER ORDERED:

1. That Met-Ed, Penelec and West Penn shall modify their EEC Plans to provide the same incentive as proposed for efficient water heating measures 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 Met-Ed, Penelec and West Penn shall modify their EEC Plans to provide in lieu of, or as an alternative to, the ASHP measure: (a) an incentive payment of $1,400 to every residential customer who installs a natural gas furnace with an annual fuel use efficiency (AFUE) greater than 95% and a SEER 15 electric central air conditioning unit; and (b) an incentive payment of $2,500 to every residential customer who installs a natural gas furnace with an AFUE greater than 95% and a SEER 16 electric central air conditioning unit. Met-Ed, Penelec and West Penn 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, (c) funding through the use of eliminated ground source heat pump program budget funds, or (d) a combination of (a), (b) and (c).

3. That Met-Ed, Penelec and West Penn shall modify their EEC Plans to eliminate the payment of incentives to promote ground source heat pump installations.

4. That Met-Ed, Penelec and West Penn shall modify their EEC Plans to prohibit the payment of incentives where fuel switching from natural gas to electric could result.

5. That Met-Ed, Penelec and West Penn shall modify their EEC Plans' customer education, awareness and outreach programs to inform their 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.

Respectfully submitted,

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Dated: January 28, 2013