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January 28, 2013

**VIA ELECTRONIC FILING**

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Bldg., 2<sup>nd</sup> Fl.  
400 North Street  
Harrisburg, PA 17105-3265

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

Dear Secretary Chiavetta:

Enclosed for electronic filing is Converge, Inc.'s Main Brief in the above-referenced matter.  
Copies have been served in accordance with the attached Certificate of Service.

Very truly yours,



Jeffrey J. Norton

JJN/jls  
Enclosure

cc: Hon. Dennis J. Buckley (w/enc)  
Certificate of Service (w/enc)

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Main Brief has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

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Jeffrey J. Norton

Date: January 28, 2013

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

<b>PETITION OF PPL ELECTRIC</b>	:	
<b>UTILITIES CORPORATION FOR</b>	:	
<b>APPROVAL OF ITS ACT 129 PHASE</b>	:	Docket No. M-2012-2334388
<b>II ENERGY EFFICIENCY AND</b>	:	
<b>CONSERVATION PLAN</b>	:	

**MAIN BRIEF OF COMVERGE, INC.**

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## I. INTRODUCTION

Comverge, Inc. (“Comverge”) is a leading provider of energy management products and services to various customers.<sup>1</sup> Comverge is registered as a Conservation Service Provider (“CSP”),<sup>2</sup> and has been active in providing complex energy management programs and related services to electric distribution companies (“EDCs”) and to residential, small and large commercial, and industrial customers throughout Pennsylvania, including the service territory of PPL Electric Utilities Corporation (“PPL” or “Company”).<sup>3</sup>

Comverge’s participation in this proceeding has focused on insuring the use of cost effective and energy efficient on-site combined heat and power (“CHP”) technologies to the greatest extent possible. CHP technology, also known as cogeneration, is explained by the Environmental Protection Agency (“EPA”), as the simultaneous production of electricity and heat from a single fuel source (e.g., natural gas).<sup>4</sup> CHP is an integrated energy system that can be modified depending upon the needs of the energy end user and provides: 1) onsite generation of electrical and/or mechanical power; 2) waste-heat recovery for heating, cooling,

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<sup>1</sup> *Comverge Petition to Intervene* at 1.

<sup>2</sup> *Comverge Petition to Intervene* at 4. Comverge is registered as a CSP on the PUC’s Registry of CSPs. *See Petition of Comverge, Inc.*, Docket No. A-2009-2113604, Secretarial Letter dated Nov. 3, 2011 (approving application to re-register as a CSP).

<sup>3</sup> *Comverge Petition to Intervene* at 1. Comverge has a unique business model, and extensive experience in providing energy management solution services to all types of customers.

<sup>4</sup> *See*: <http://www.epa.gov/chp/basic/index.html>.

dehumidification, or process applications; as well as 3) seamless system integration for a variety of technologies, thermal applications, and fuel types into existing building infrastructure.<sup>5</sup>

The installation of CHP technologies provide innumerable benefits to PPL and its ratepayers. For example, in the testimony of record, UGI Utilities, Inc. (“UGI”) witness Raab sets forth some of the “widely recognized” significant benefits of CHP including: the reduction of greenhouse gas emissions, reduction of electric transmission and distribution line losses, reduction of electric demand, reduction of wholesale electric and gas prices, along with the promotion of the direct end use of natural gas and overall increased efficiencies.<sup>6</sup>

Additionally, The EPA describes the many benefits of CHP by setting forth the following:

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<sup>5</sup> See: <http://www.epa.gov/chp/basic/index.html>. Other state utility commissions also recognize CHP. For example, *In The Matter Of The Comprehensive Energy Efficiency And Renewable Energy Resource Analysis For 2005-2008: Final 2006 Programs And Budgets - The Combined Heat And Power Program Award Recipients*, New Jersey Board of Public Utilities Docket No. EX04040276, Order dated March 6, 2007, 2007 N.J. PUC LEXIS 39 at \*1 (“CHP systems make use of waste heat, thereby improving the efficiency of fuel use. They typically produce fewer emissions than grid connected electric generators.”); *In The Matter Of The Application Of Southwest Gas Corporation For Approval Of An Energy Efficiency And Renewable Energy Resource Technology Portfolio Implementation Plan, And For Approval To Revise The Rate Collected Through Its Demand-Side Management Adjustor Mechanism*, Arizona Corporation Commission Docket No. G-01551A-11-0344; DECISION NO. 73229, Order entered June 5, 2012, 2012 Ariz. PUC LEXIS 120 at \*19 (“CHP uses a primary energy source to produce both electric energy and useful process heat. CHP systems are configured to recapture the waste heat and use it for space heating, water heating, industrial steam loads, air conditioning, humidity control, water cooling, product drying or any other thermal need.”); *In The Matter Of An Investigation Of Combined Heat And Power Generation In Colorado*, Colorado Public Utilities Commission Decision No. C12-0995; Docket No. 12I-937E, Order adopted August 22, 2012, 2012 Colo. PUC LEXIS 793 at \*1 (“The use of Combined Heat and Power (CHP) in the generation of electricity has the potential to be an important aspect of electric demand side management plans.”).

<sup>6</sup> UGI Statement No. 1 (Raab) at 27-28.

CHP plays an important role in meeting the United States' energy needs as well as in reducing the environmental impact of power generation, including:

Efficiency Benefits - CHP requires less fuel to produce a given energy output, and avoids transmission and distribution losses that occur when electricity travels over power lines.

Reliability Benefits - CHP can be designed to provide high-quality electricity and thermal energy to a site regardless of what might occur on the power grid, decreasing the impact of outages and improving power quality for sensitive equipment.

Environmental Benefits - Because less fuel is burned to produce each unit of energy output, CHP reduces air pollution and greenhouse gas emissions.

Economic Benefits - CHP can save facilities considerable money on their energy bills due to its high efficiency and can provide a hedge against unstable energy costs.<sup>7</sup>

Comverge believes that commercial and industrial accounts, including government, public, and non-profit facilities, provided with electricity by PPL should be eligible to participate in CHP projects and receive incentives under PPL's proposed Phase II Energy Efficiency and Conservation ("EE&C") Plan. As established in the record here, CHP projects are energy efficient, cost-effective, and conserve energy. These projects generate electric and thermal energy from a single fuel source, e.g., natural gas, which is abundant and inexpensive in the Commonwealth. Customers with steady base load electricity usage coupled with steady thermal demand can prudently realize significant efficiencies and savings by incorporating CHP.

While Comverge applauds PPL's willingness to consider CHP projects as part of its effort to reduce electric consumption and demand, in accordance with its Act 129 obligations,<sup>8</sup>

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<sup>7</sup> See: <http://www.epa.gov/chp/basic/index.html>, which sets forth more information regarding the benefits of CHP technologies and the differentiation between generation efficiency and on-site efficiency.

<sup>8</sup> Act 129 of 2008, P.L. 1592, 66 Pa. C.S. § 2806.1 ("Act 129").

PPL, for reasons that remain unclear, has proposed that, for a CHP project to obtain incentives from PPL it must be shown to produce a higher Total Resource Cost (“TRC”) score (1.25 rather than 1.0 or higher) and will pay those projects at a lower incentive rate (at \$0.05/kWh saved rather than at \$0.08/kWh saved) than other comparable projects under its Custom Incentive Program. By requiring a higher TRC score and paying lower incentives, PPL, will not be consistent with what should plainly be the policy of the Commonwealth: to encourage and promote the use of natural gas – with attendant benefits for the ratepayer, the environment and the Pennsylvania economy – while reducing electric usage, where it is sensible and efficient to do so.

Accordingly, Comverge urges the Commission to order PPL to include in its Act 129 EE&C Phase II Plan CHP projects with a projected TRC score of 1.0. Also, Comverge urges that PPL be directed to pay increased incentives for energy savings per kWh for CHP so that CHP projects are treated equally to non-CHP measures under its proposed Custom Incentive Program in the Phase II Plan. Indeed, these should be elements of all Pennsylvania EDCs as a cost effective, energy efficient use that supports the goals and objectives of Act 129.<sup>9</sup>

## **II. PROCEDURAL HISTORY**

### **A. Procedural History**

PPL petitioned the Commission for approval of its proposed Phase II EE&C Plan on November 15, 2012. PPL’s proposed Phase II Plan aims to reduce energy consumption in accordance with the requirements of Act 129 and the Commission’s *Phase II Implementation*

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<sup>9</sup> *Comverge Petition to Intervene* at 3.

*Order*.<sup>10</sup> Notice of the filing of PPL's proposed Phase II Plan appeared in the *Pennsylvania Bulletin* on December 1, 2012.<sup>11</sup>

This proceeding was assigned to Administrative Law Judge ("ALJ") Dennis J. Buckley. On December, 19, 2012, Comverge timely filed a Petition to Intervene in this proceeding and submitted verified Comments<sup>12</sup> on December 21, 2012. Comverge's Petition to Intervene was granted by the ALJ's Third Prehearing Order, dated December 27, 2012.

The evidentiary hearing has held on January 16, 2013. At the hearing, pre-filed written testimony and exhibits were admitted into the record, and party witnesses were made available for cross examination. The ALJ is scheduled to certify the record to the Commission on February 14, 2013.<sup>13</sup>

#### **B. Legal Standards**

In this case, PPL has the ultimate burden of proof in the proceeding and the initial burden of going forward with evidence showing that its proposals are lawful and reasonable. Section 332(a) of the Public Utility Code ("Code") provides that the party seeking a rule or order from the Commission has the burden of proof in that proceeding.<sup>14</sup> It is axiomatic that "[a] litigant's burden of proof before administrative tribunals as well as before most civil proceedings is

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<sup>10</sup> *Energy Efficiency and Conservation Program Implementation Order*, Docket No. M-2012-2289411, Opinion and Order entered August 3, 2012 ("Phase II Implementation Order").

<sup>11</sup> 42 Pa.B. 7372 (December 1, 2012).

<sup>12</sup> The Commission authorized the filing of "comments and recommendations" to PPL's Phase II Plan. 42 Pa.B. 7372 (December 1, 2012). Comverge's Comments were verified by Raymond G. Berkebile. These comments are available at <http://www.puc.state.pa.us/pcdocs/1205889.pdf>.

<sup>13</sup> See Ordering Paragraph 1 of the *Second Prehearing Order*, dated December 12, 2012.

<sup>14</sup> 66 Pa. C.S. § 332(a).

satisfied by establishing a preponderance of evidence which is substantial and legally credible.”<sup>15</sup>

A preponderance of the evidence means evidence which is more convincing, by even the smallest amount, than that presented by the other party.<sup>16</sup> Additionally, any finding of fact necessary to support the Commission’s adjudication must be based upon substantial evidence.<sup>17</sup> More information is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established.<sup>18</sup>

### III. DESCRIPTION OF THE EDC PLAN

In a relatively minor way, PPL has included CHP as an energy efficiency and conservation measure in both its Phase I and Phase II EE&C Plans. In its Phase I Plan, PPL mentioned CHP technologies for use with the low-income multi-family sector.<sup>19</sup> In its proposed Phase II Plan, as part of the Custom Incentive Program, PPL briefly discusses CHP under its eligible energy efficiency and conservation measures and/or energy savings incentives

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<sup>15</sup> *Samuel J. Lansberry, Inc. v. Pa. PUC*, 578 A.2d 600, 602 (Pa. Cmwlth. 1990).

<sup>16</sup> *Se-Ling Hosiery v. Margulies*, 364 Pa. 45, 70 A.2d 854 (1950).

<sup>17</sup> *Mill v. Pa. PUC*, 447 A.2d 1100 (Pa. Cmwlth. 1982); *Edan Transportation Corp. v. Pa. PUC*, 623 A.2d 6 (Pa. Cmwlth. 1993).

<sup>18</sup> *Norfolk and Western Ry. v. Pa. PUC*, 489 Pa. 109, 413 A.2d 1037 (1980); *Erie Resistor Corp. v. Unemployment Compensation Bd. of Review*, 166 A.2d 96 (Pa. Super. 1960); *Murphy v. Commonwealth, Dep’t. of Public Welfare, White Haven Center*, 480 A.2d 382 (Pa. Cmwlth. 1984).

<sup>19</sup> In its Phase I Plan, PPL briefly mentions CHP with regard to low-income multi-family sector in essentially the same way in the following documents: PPL Electric Utilities Corporation Energy Efficiency and Conservation Plan, Docket No. M-2009-2093216; July 1, 2009 Plan at 97; July 31, 2009 Plan at 97; December 15, 2009 Plan at 102-103; September 15, 2010 Plan at 103; February 28, 2011 Plan at 122; May 29, 2012 Plan at 98. Also see: PPL Quarterly Report to the Commission by The Cadmus Group dated July 15, 2012 at 12; PPL Final Annual Report to the Commission dated November 15, 2012 at 49.

strategies.<sup>20</sup> PPL mentioned that it held meetings with stakeholders who discussed CHP projects in Phase II as part of the Plan's Custom Incentive Program but provided little detail on the CHP measures offered and why such decisions were made. In describing those stakeholder meetings, PPL's Plan simply states, "Suggestions included offering fewer projects with a higher kWh incentive while others recommended a lower kWh incentive and more projects."<sup>21</sup>

In its proposed Phase II Plan, PPL further provides, "Energy-efficiency projects must meet a TRC of greater than 1 to be eligible for incentives."<sup>22</sup> However, PPL then goes on to state:

During meetings with stakeholders, questions were raised about including Combined Heat and Power as part of the Custom Incentive Program. CHP projects will be accepted with the caveat that they meet a TRC of 1.25 or greater. Experience in Phase I with CHP projects provided valuable insights about the high degree of uncertainties CHP projects that go into calculating savings. (e.g., hours of operation, energy costs savings over the lifetime.)<sup>23</sup> (emphasis added).

Moreover, PPL proposes a different (and lower) incentive for CHP projects (at \$0.05/kWh saved) than the other energy-efficiency measures (at \$0.08/kWh saved.)<sup>24</sup>

Without substantial evidence or reasonable justification, PPL is proposing to require a higher TRC score for CHP projects and will pay CHP projects lower incentives than other non-CHP projects within its Custom Incentive Program. These elements of PPL's proposed EE&C Plan should be rejected and modified to treat CHP like other energy-efficiency measures.

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<sup>20</sup> CHP is mentioned as an eligible energy measure and/or incentive including references on pages 14, 102, 118 and 134 of PPL's Phase II EE&C Plan.

<sup>21</sup> PPL's Phase II EE&C Plan at 14.

<sup>22</sup> *Id.* at 102, 118 and 134,

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

#### IV. SUMMARY OF ARGUMENT

Comverge submits that the proposed PPL Phase II EE&C Plan does not go far enough and, at times, actually inhibits the inclusion of CHP as an energy efficiency measure. The development of CHP technologies is prudent and in the public interest since the CHP technologies and opportunities will make a significant contribution to attainment of PPL's energy savings goals under Act 129 by providing innovative ways to be energy efficient and conserve energy while, at the same time, promote the use of natural gas, an environmentally friendly energy source which is produced in great measure in the Commonwealth. Hence, enthusiastic promotion of CHP projects should be a key element of PPL's EE&C Plan.

Comverge joins UGI in stating that in the proposed PPL Phase II Plan, the Custom Incentive Program "unfairly penalizes CHP projects that would be eligible for funding under the program in unsupported discriminatory fashion."<sup>25</sup> Under PPL's proposed Phase II Plan, it will require significantly higher hurdles for CHP projects by inexplicably requiring a higher TRC score only for CHP Projects and providing those projects with lower incentives than other non-CHP projects under its Custom Incentive Program. Other EDCs in the Commonwealth have proposed a TRC score of 1.0.<sup>26</sup> By proposing a higher TRC score and paying lower incentives, PPL will be actively barring otherwise effective CHP projects and the foreclosing the opportunity for savings that could be generated by effective CHP projects with a TRC score above 1.0, but below 1.25. Not only should CHP projects be put on the same footing as comparable technologies, but they should be encouraged, as they have the important benefit of

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<sup>25</sup> UGI Statement No. 1 (Raab) at 9.

<sup>26</sup> See proposed joint partial settlements regarding EE&C Phase II Plans for Duquesne Light Company at 2012-2334399; and Metropolitan Edison's ("First Energy Companies") at 2012-2334387.



promoting the greater use of natural gas, which will, in turn, benefit the Pennsylvania economy. PPL has inexplicably proposed significant discriminatory changes to inhibit the development of CHP in its territory without substantial evidence or reasonable justification. PPL simply provides conclusions on its CHP positions without any meaningful evidentiary basis. Even if one accepts the evidence as presented by PPL, the overwhelming evidence of record clearly demonstrates that CHP provides a valuable energy efficient and conservation measure to meet the EDC's Act 129 goals. Therefore, PPL has failed to meet its burden by a preponderance of evidence to show that its proposal is reasonable.

Accordingly, the Commission should order PPL to actively develop and implement CHP technologies, with a TRC score of 1.0, in its service territory,<sup>27</sup> and to provide the same incentives as the non-CHP other energy-efficiency measures within the proposed Phase II Plan.

## V. ARGUMENT

### A. Procedural/Evidentiary Issues

The Commission's *Phase II Implementation Order* authorized the filing of "comments and recommendations" to PPL's Phase II EE&C Plan.<sup>28</sup> This authorization was reflected in the notice published in the *Pennsylvania Bulletin*.<sup>29</sup> Comverge filed timely Comments on December 21, 2012.<sup>30</sup> ALJ Buckley ordered that comments and testimony were due on or before December

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<sup>27</sup> See *Comverge Petition to Intervene* at 3.

<sup>28</sup> *Implementation Order* at 62.

<sup>29</sup> 42 Pa.B. 7372 (December 1, 2012).

<sup>30</sup> See Comverge Comments at <http://www.puc.state.pa.us/pdocs/1205889.pdf>.

28, 2012.<sup>31</sup> Reply comments and/or a revised plan from the EDC are due February 7, 2013,<sup>32</sup> which is 10 days after the submission of briefs and 7 days before the record is certified to the Commission.<sup>33</sup>

On January 9, 2013, in the Fourth Prehearing Order, ALJ Buckley stated that he would not accept any “comments” into the certified (evidentiary) record.<sup>34</sup> This occurred after the deadline for the filing of direct testimony, which had passed on December 28, 2012.<sup>35</sup>

In response to the Fourth Prehearing Order, Comverge filed a Petition seeking to submit the substance of Comverge’s prior Comments (which were already verified) in the form of direct testimony.<sup>36</sup> That Petition was denied, on January 16, 2013, by the ALJ’s Fifth Prehearing Order. Comverge respectfully continues to submit that the ALJ’s decision was incorrect and Comverge’s proposed direct testimony should have been accepted into the record of the proceeding. However, to the extent that Comverge’s arguments below focus on specific aspects of PPL’s EE&C Plan, it relies upon testimony and evidence of UGI and PPL, or the absence of

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<sup>31</sup> See *Second Prehearing Order* at 3.

<sup>32</sup> See *Second Prehearing Order* at 3.

<sup>33</sup> *Id.*; *Implementation Order* at 62.

<sup>34</sup> It should be noted that Ordering Paragraph 3 of the *Third Prehearing Order* directed that Comverge “was bound by the procedural schedule and the conditions set forth in all prior Prehearing Orders issued at this docket to date.” Importantly, neither the First Prehearing Order nor the Second Prehearing Order conveyed the ALJ’s decision that “comments” offered by a party in lieu of testimony would not be accepted into the certified (evidentiary) record.

<sup>35</sup> See *Second Prehearing Order* at 3.

<sup>36</sup> *Comverge’s Petition for Admission Nunc Pro Tunc of the Direct Testimony of Raymond Berkebile* (filed on January 14, 2013).

any supporting evidence, to support its position. To the extent that Comverge refers to its Comments, it does so as additive, corroborating information.

**B. Act 129 Conservation Requirements**

1. Overall Conservation Requirements

Comverge takes no position on the issues in Section V.B.1.

2. Requirements for a Variety of Programs Equitably Distributed

Comverge takes no position on the issues in Section V.B.2.

3. 10% Government/Non-Profit Requirement

Comverge takes no position on the issues in Section V.B.3.

4. Low Income Program Requirements

Comverge takes no position on the issues in Section V.B.4.

5. Whole House Measure(s) Requirement

Comverge takes no position on the issues in Section V.B.5.

6. Issues Relating to Individual Conservation Programs

Comverge takes no position on the issues in Section V.B.6.

7. Proposals for Improvement of EDC Plan

a. Residential

Comverge takes no position on the issues in Section V.B.7.a.

b. Commercial

Comverge supports the use of CHP for all Pennsylvania EDCs as a cost effective, energy efficient use that supports the goals and objectives of Act 129. Comverge believes that commercial and industrial accounts, including government, public, and non-profit facilities, provided with electricity by PPL should be eligible to participate in CHP projects and receive incentives under PPL's proposed Phase II EE&C Plan.

Since the CHP technologies will typically utilize natural gas, the availability and abundance of low-cost natural gas throughout the Marcellus Shale and Utica Shale regions make CHP projects very attractive with respect to financial, economic and environmental factors. The PPL Phase II Plan does not fully consider the other non-operational benefits of implementing CHP which include the use of Marcellus Shale gas and its economic development impact for the Commonwealth. It cannot be disputed that CHP provides innumerable benefits and is an important energy efficient and energy conservation measure that will help an EDC meet its Act 129 goals. UGI's Mr. Raab testified that CHP has been widely recognized as providing significant energy conservation and increased energy efficiency benefits.<sup>37</sup>

Unless PPL has a workable CHP program, PPL and its C&I customers will lose the opportunity to benefit from CHP technologies – which have the potential to make a significant

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<sup>37</sup> UGI Statement No. 1 (Raab) at 27-28. Accord: "*Challenges Facing Combined Heat and Power Today: A State-by-State Assessment*," By Anna Chittum and Nate Kaufman, September 2011, American Council for an Energy-Efficient Economy, Report Number IE111 at 63. This report is available at: <http://www.uschpa.org/files/public/ie111.pdf>.

contribution to attainment of PPL's energy savings goals, and C&I customers will lose the opportunity to save energy and money through CHP projects.<sup>38</sup>

While Comverge applauds PPL's willingness to consider CHP projects as part of its effort to reduce electric consumption and demand, in accordance with its Act 129 obligations, it disagrees with PPL's proposed approach to CHP. PPL's proposed Phase II Plan provides little detail on the CHP measures and incentives while advocating for a high TRC score of 1.25 and lower incentives for CHP. These Plan deficiencies will significantly inhibit the use of CHP as an energy efficiency measure in PPL's service territory and CHP projects will be hindered by a lack of funding to invest and promote efficient CHP products.

**i. The Custom Incentives for CHP Should be at Same Savings Figure as Other Energy Efficiency Measures in the Proposed PPL Phase II Plan.**

In its proposed Phase II Plan, as part of the Custom Incentive Program, PPL briefly discusses CHP under its eligible energy efficiency and conservation measures and/or energy savings incentives strategies.<sup>39</sup> PPL mentions that it held meetings with stakeholders who discussed CHP projects in Phase II as part of the Plan's Custom Incentive Program but provided little detail on the CHP measures offered. In describing those CHP stakeholder meetings, PPL's Plan simply states, "Suggestions included offering fewer projects with a higher kWh incentive while others recommended a lower kWh incentive and more projects."<sup>40</sup>

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<sup>38</sup> For a more comprehensive and reasonable approach regarding CHP, see PECO's Smart On-Site Program which is a part of PECO's Phase II EE&C Plan, which can be found at Docket No. M-2012-2333992.

<sup>39</sup> CHP is mentioned as an eligible energy measure and/or incentive including references on pages 14, 102, 118 and 134 of PPL's Phase II EE&C Plan.

<sup>40</sup> PPL's Phase II EE&C Plan at 14.

Without substantial evidence to support it and without reasonable justification, PPL proposes a different (and lower) incentive for CHP projects (at \$0.05/kWh saved based on verified savings) than the other non-CHP energy-efficiency measures (at \$0.08/kWh saved based on verified savings.)<sup>41</sup>

In its testimony, UGI recommended specific improvements to PPL's Plan including a modified CHP incentive measure.<sup>42</sup> UGI offered the suggested improvements to address deficiencies and biases in the PPL Plan.<sup>43</sup> The improvements, as recommended by UGI, will provide for an expanded menu of direct end use of natural gas measures and make PPL's proposed Phase II Plan more cost-effective and provide energy-efficiency benefits.<sup>44</sup> UGI specifically recommends that the PPL Plan should "provide incentives for CHP projects within the Custom Incentive Program that are comparable to other measures that would be eligible for funding under the program."<sup>45</sup> UGI believes that this design change can be easily incorporated into the PPL Plan and will improve the cost-effectiveness of the overall Plan; and either: (a) result in greater electricity savings than provided by the current Plan, or (b) provide the same level of electricity savings at a lower cost to PPL's customers than the current Plan.<sup>46</sup> Comverge supports these recommendations.

**ii. The Threshold TRC Score for CHP Should be 1.0, not 1.25**

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<sup>41</sup> *Id.* at 102, 118 and 134.

<sup>42</sup> UGI Statement No. 1 (Raab) at 3.

<sup>43</sup> *Id.* at 3.

<sup>44</sup> *Id.* at 3.

<sup>45</sup> *Id.* at 4.

<sup>46</sup> *Id.* at 4.

In its proposed Phase II Plan, PPL wants to require a higher TRC score at or above 1.25 for only CHP Projects. This is a higher hurdle for CHP projects compared to other custom energy efficiency measures, which PPL proposes must meet only a TRC score of 1.0 (or more).<sup>47</sup> PPL's sole apparent justification for this different treatment is as follows:

During meetings with stakeholders, questions were raised about including Combined Heat and Power as part of the Custom Incentive Program. CHP projects will be accepted with the caveat that they meet a TRC of 1.25 or greater. Experience in Phase I with CHP projects provided valuable insights about the high degree of uncertainties CHP [sic] projects that go into calculating savings. (e.g., hours of operation, energy costs savings over the lifetime.)<sup>48</sup>

It is noted that the PPL proposed Phase II Plan does not specifically raise the "uncertainty" issue with regard to other non-CHP energy efficiency measures. These are sweeping conclusions by PPL without any reasonable support. As UGI's witness Mr. Raab explained, PPL's Custom Incentive Program unfairly – and without any justification – penalizes CHP in the following two ways.<sup>49</sup>

First, it provides a lower incentive for CHP projects than for other projects eligible for funding under the Custom Incentive Program. Specifically, PPL will provide an incentive of \$0.08/kWh saved based on verified savings for all eligible projects under its Custom program except for CHP projects. For CHP projects, the incentive is only \$0.05/kWh saved based on verified savings. Second, PPL applies an additional constraint on CHP projects in that they will only be accepted if they meet a TRC of 1.25 or greater compared to a TRC requirement of 1.00 or greater for all other Custom projects. Indeed, the application of a TRC hurdle of 1.25 to CHP measures stands in stark contrast to PPL's acceptance of TRC values as low as 0.12 for certain other measures.... Such obvious bias – against gas technologies – in measure selection and application appears to be in violation of Commission policy.<sup>50</sup>

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<sup>47</sup> PPL Phase II Plan at 102, 118, and 134.

<sup>48</sup> *Id.* at 102, 118 and 134.

<sup>49</sup> UGI Statement No. 1 (Raab) at 13.

<sup>50</sup> *Id.* at 13

In attempting to explain why PPL would impose such additional constraints, UGI's Mr. Raab concluded, "In other words, it appears that PPL is concerned that anticipated savings for CHP projects may never materialize." But that is hardly a justification for PPL to arbitrarily require a higher TRC score; Mr. Raab further testified that 1) PPL's concern regarding the uncertainty of the savings is not consistent with Act 129 program requirements that restrict the payment of an incentive for only those measures for which there are "verified savings;" 2) the savings associated with CHP projects are not any less certain than savings associated with any other type of equipment, project or process improvement for which PPL might pay an Act 129 incentive; 3) requiring a higher ex ante TRC requirement is not consistent with Act 129 itself, which only requires that supply side options be cost effective with a TRC greater than one; and 4) unfairly burdening CHP projects also is not consistent with President Obama's August 30, 2012 Executive Order which established new national goals for new CHP capacity by 2020.<sup>51</sup> Under this Order, the president identified CHP as one of the key components within a broader energy efficiency policy targeting the industrial and manufacturing sectors. The Order established a new national goal of 40 gigawatts of new combined heat and power capacity by 2020, a 50% increase from today. Meeting this goal would save energy users \$10 billion per year, result in \$40 to \$80 billion in new capital investment in manufacturing and other facilities that would create American jobs, and reduce emissions equivalent to 25 million cars.<sup>52</sup>

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<sup>51</sup> See Executive Order at: <http://www.whitehouse.gov/the-press-office/2012/08/30/executive-order-accelerating-investment-industrial-energy-efficiency>.

<sup>52</sup> *Id.* at 15.



Comverge generally agrees with this testimony and joins in UGI's recommendations on CHP projects for the PPL Phase II Plan.<sup>53</sup> Specifically, UGI witness Mr. Raab also has recommended that PPL treat CHP projects in an equivalent manner to other measures that would be eligible for funding under the PPL Custom Incentive Program, by (a) providing for an equivalent \$0.08/kWh incentive and, (b) applying a TRC threshold of 1.0.<sup>54</sup> In his evaluation of the recommendations to the PPL Plan, Mr. Raab concluded that these changes would not result in a budget impact, and will simply induce more CHP projects to be considered and ultimately developed in the PPL service territory.<sup>55</sup>

To support its recommendations, UGI explained how PPL's treatment of CHP unfairly penalizes CHP projects. The higher TRC score for CHP projects will result in less investment in CHP projects relative to other energy efficiency investments and supply side resources.<sup>56</sup> The requirement of a higher score "stands in stark contrast to PPL's acceptance of TRC values as low as 0.12 for certain other measures."<sup>57</sup>

In its rebuttal testimony, PPL essentially stated that CHP is too uncertain and too expensive, but provided absolutely no evidence to support this assertion. Of course, if CHP were in fact so uncertain and expensive then the correct conclusion is that this measure should not be included in PPL's Plan in the first place. Having in fact endorsed CHP as an appropriate

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<sup>53</sup> UGI Statement No. 1 (Raab) at 13-16.

<sup>54</sup> UGI Statement No. 1 (Raab) at 15-16.

<sup>55</sup> UGI Statement No. 1 (Raab) at 16.

<sup>56</sup> UGI Statement No. 1 (Raab) at 13-14.

<sup>57</sup> UGI Statement No. 1 (Raab) at 13.

measure, a disparate treatment for CHP has to be supported by record evidence somehow justifying the disparity. But none was offered.

Specially, PPL witness Peter Cleff attempted to explain that it set a higher TRC threshold for CHP because “the variables used to calculate the benefit-to-cost ratio are less certain than other types of custom projects.”<sup>58</sup> PPL’s Mr. Cleff attempts to justify the higher hurdle by saying that the TRC estimate for CHP is very sensitive to slight variations in estimated operating hours, estimated fuel cost, equipment efficiency, and other factors over the 15-year evaluated life of a CHP project, and it often takes six months or more of post-installation operating data to verify the savings.<sup>59</sup> He said there would be no margin for uncertainties.<sup>60</sup> But such factors would logically be incorporated into the calculation of the costs and benefits, to take into account historic performance and to make the projected results more accurate – not by arbitrarily increasing the amount of benefits that must be obtained in comparison to the reasonably calculated costs.

Moreover, many larger scale energy efficiency projects are sensitive to variations to operating time, fuel cost, etc. Importantly, however, PPL failed to make any comparisons with other energy efficiency measures to show that such “uncertainties” are a greater problem for CHP.

Mr. Cleff also testified that “some (unidentified) stakeholders recommended and PPL Electric agreed that the incentive per kWh and the rebate caps should be adjusted for CHP projects in Phase II, but still remain meaningful, so that the funds would be available to more

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<sup>58</sup> PPL Statement 4-R (Cleff) at 15.

<sup>59</sup> *Id.* at 15-16.

<sup>60</sup> *Id.* at 16.

customers in these sectors, rather than the funds concentrated in a fewer number of large projects.”<sup>61</sup> Mr. Cleff further testified that in Phase I, out of six CHP projects, four received incentives and two are under construction in the PPL service territory. The rebates for those projects accounted for 15% of the total Custom Program budget for Large C&I and Institutional customers.<sup>62</sup> But this is akin to saying that incentives should be reserved for less efficient projects in order to save the budget; this defies logic. PPL’s actions also go against the main purpose of Act 129 which is to promote the most energy efficient projects.<sup>63</sup> As previously stated herein, the overwhelming evidence reveals that CHP is one of the most energy efficient custom measures available.

Therefore, there is not a reasonable justification on the record for PPL to use a high TRC score of 1.25 for CHP projects. This number appears to be an arbitrary effort by PPL to “split the baby” by taking the average of the range of predicted TRC ratio for CHP projects, which the Cadmus Group stated was generally between 1.0 and 1.5.<sup>64</sup> This mathematical adjustment to the

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<sup>61</sup> *Id.* 16-17.

<sup>62</sup> *Id.* at 16.

<sup>63</sup> *See, e.g.*, 66 Pa. C.S. § 2806.1(a) providing that EDCs are required to, inter alia, "adopt and implement cost-effective energy efficiency and conservation plans"; Section (3) of the Preamble to Act 129 of 2008, which states that: “It is in the public interest to expand the use of alternative energy and to explore the feasibility of new sources of alternative energy to provide electric generation in this Commonwealth.”; and, *Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual 2013 Update*, Docket No. M-2012-2313373, Opinion and Order entered December 20, 2012, which adopts changes to the standards that will be used to measure and verify applicable measures used by EDCs to meet the Act 129 consumption and peak demand reduction targets.

<sup>64</sup> Process Evaluation Report on PPL EE&C Plan Program Year Three dated November 15, 2012 by The Cadmus Group at 21.

TRC score for CHP projects is not supported by the record, and was not done for other projects under PPL's Custom Incentive Program. Moreover, as previously stated, other EDCs in the Commonwealth are requiring a TRC score of 1.0, not 1.25, for CHP projects.

PPL's proposed incentive payments for CHP will also actively discriminate against CHP projects with the same verified savings. Given that incentives for both CHP project and non-CHP projects are based on verified savings, there is no reasonable justification for the distinction in the TRC score or the incentive provided to the customer.<sup>65</sup> Either PPL can verify savings, in which case an incentive is awarded, or it cannot, in which case no incentive is awarded.<sup>66</sup> Since the lower incentives for CHP are not reasonable, PPL's treatment of CHP constitutes undue discrimination within the meaning of the Public Utility Code.<sup>67</sup>

The record clearly demonstrates that these design changes can be easily incorporated into the PPL Plan and will: (1) improve the cost-effectiveness of the overall Plan; and either: (a) result in greater electricity savings than provided by the current Plan, or (b) provide the same level of electricity savings at a lower cost to PPL's customers than the current Plan.<sup>68</sup>

Finally, Comverge further agrees with UGI's statement, "It will not be enough for PPL to simply modify its program offerings to include these recommended offerings, but it must also support the measures with appropriate outreach, education and awareness efforts, as is applicable

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<sup>65</sup> UGI Statement No. 1 (Raab) at 14.

<sup>66</sup> UGI Statement No. 1 (Raab) at 14.

<sup>67</sup> It is well settled that discrimination in service and rate structure is expressly prohibited by the Public Utility Code. 66 Pa. C.S. §§ 1304, 1305.

<sup>68</sup> UGI Statement No. 1 (Raab) at 29-30.

to all other measures.”<sup>69</sup> Comverge advocates that PPL should be directed to do more to actively develop and implement CHP technologies at a TRC score of 1.0 in its service territory and provide higher incentives that would be available for other non-CHP energy-efficiency projects under the PPL Phase II Plan. Comverge further requests that the Commission direct PPL to schedule a collaborative workshop with key stakeholders, including Comverge, to develop the details of a modified CHP program for PPL and to ensure that all implementation issues related to that modified program are fully addressed.

c. Industrial

Comverge’s positions, comments and recommendations in Section V.B.7.b (commercial) are equally applicable here (to industrials) and said positions, comments and recommendations are incorporated herein by reference.

**C. Cost Issues**

1. Plan Cost Issues

Comverge takes no position on the issues in Section V.C.1.

2. Cost Effectiveness/Cost-Benefit Issues

In its proposed Phase II Plan, PPL will require a higher TRC score of 1.25 for only CHP Projects and will pay lower incentives than other measures under its Custom Incentive Program. Comverge disagrees and advocates that the proposed PPL Phase II Plan should have a TRC score of 1.0 for CHP projects. Comverge’s positions, comments and recommendations in Section V.B.7.b (commercial) are equally applicable here and said positions, comments and recommendations are incorporated herein by reference.

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<sup>69</sup> UGI Statement No. 1 (Raab) at 22.

3. Cost Allocation Issues

Comverge takes no position on the issues in Section V.C.3.

4. Cost Recovery Issues

Comverge takes no position on the issues in Section V.C.4.

**D. CSP Issues**

Comverge takes no position on the issues in Section V.D.

**E. Implementation and Evaluation Issues**

Comverge takes no position on the issues in Section V.E.

**F. Other Issues**

Comverge has not raised any “other issues.”

**VI. CONCLUSION**

Comverge respectfully requests that the Commission issue an Opinion and Order consistent with Comverge’s positions, comments and recommendations in this proceeding and the Proposed Ordering Paragraphs (below) (a) to modify program elements that inhibits the use of CHP as an energy efficiency measure, which would require directing PPL to have a TRC

score of 1.0 for CHP projects; and (b) to provide greater use of, and more financial incentives for, CHP projects in PPL's service territory, specifically an incentive at \$0.08/kWh, instead of \$0.05/kWh for CHP projects.

Respectfully submitted,



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Date: January 28, 2012

Attorneys for Comverge, Inc.

**Proposed Ordering Paragraphs**

IT IS ORDERED:

1. That the Petition of PPL Electric Utilities Corporation for Approval of its Phase II Energy Efficiency and Conservation Plan is granted to the extent that it is consistent with this Opinion and Order.

2. That PPL Electric Utilities Corporation's Phase II Energy Efficiency and Conservation Plan is approved consistent with this Opinion and Order.

3. That the recommendation of Comverge, Inc. to require PPL Electric Utilities Corporation to actively develop and implement combined heat and power ("CHP") technologies in its service territory is granted.

4. That the recommendation of UGI Utilities, Inc. and Comverge, Inc. that CHP Projects shall have a Total Resource Cost ("TRC") score threshold of 1.0 and be paid an incentive of \$0.08/kWh is adopted.

5. That the CHP program in PPL Electric Utilities Corporation's Phase II Energy Efficiency and Conservation Plan is modified consistent with this Opinion and Order.

6. That PPL Electric Utilities Corporation shall file with this Commission and serve on all parties of record in this proceeding a revised Phase II Energy Efficiency and Conservation Plan consistent with the modifications directed in this Opinion and Order, within sixty (60) days of the entry of this Opinion and Order. Interested parties will have ten days to file comments on the revised portions of the Phase II Energy Efficiency and Conservation Plan,



with reply comments due ten days thereafter. The Commission will approve or reject the revised portions of the Phase II Energy Efficiency and Conservation Plan at a public meeting within 60 days of the Company's revised plan filing.

7. That PPL Electric Utilities Corporation is permitted to implement any portion of its Phase II Energy Efficiency and Conservation Plan that was approved without modification by this Opinion and order.