



COMMONWEALTH OF PENNSYLVANIA

January 13, 2015

**E-FILED**

Rosemary Chiavetta, Secretary  
Pa. Public Utility Commission  
Commonwealth Keystone Building  
P.O. Box 3265  
Harrisburg, PA 17105-3265

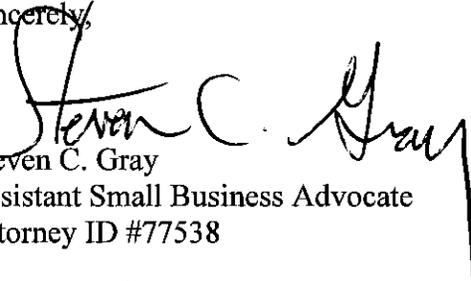
**Re: Pennsylvania Public Utility Commission v. PPL Electric Utilities, Inc.  
Docket No. M-2014-2430781**

Dear Secretary Chiavetta:

Enclosed for filing is the Main Brief, on behalf of the Office of Small Business Advocate, in the above-docketed proceeding. As evidenced by the enclosed certificate of service, two copies have been served on all active parties in this case.

If you have any questions, please contact me.

Sincerely,

  
Steven C. Gray  
Assistant Small Business Advocate  
Attorney ID #77538

Enclosures

cc: Parties of Record  
Robert D. Knecht

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Petition of PPL Electric Utilities** :  
**Corporation for Approval of Its Smart** : **Docket Nos. M-2014-2430781**  
**Meter Technology Procurement and** : **M-2009-2123945**  
**Installation Plan** :

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**MAIN BRIEF  
ON BEHALF OF THE  
OFFICE OF SMALL BUSINESS ADVOCATE**

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**Date: January 13, 2015**

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## **I. Introduction**

The Pennsylvania Public Utility Commission (“Commission”) is faced with a difficult decision in this proceeding. PPL Electric Utilities Corporation (“PPL” or the “Company”), to its credit, was the first electric distribution company (“EDC”) in the Commonwealth to install smart meters, beginning that installation in 2002. Those power line carrier (“PLC”) smart meters are still in place today.

PPL’s early generation PLC smart meters have nearly all of the functionality required by the legislature and the Commission. Of course, “nearly all” of mandated functionality is not 100 percent of the necessary functionality. However, 100 percent functionality is not required of PPL until 2025, ten years from the time of this writing. Nevertheless, PPL proposes to replace all of its existing smart meters by 2019, with full functionality achieved by 2021, well in advance of the legal requirements. In its direct case, PPL provides virtually no hard analysis in support of this proposed acceleration.

However, in its rebuttal case, some quantitative evidence for this proposed acceleration came out. PPL asserts that some of the current PLC meters are failing. Failure of technology is a common experience for everyone, whether it is his or her cell phone, automobile, computer, or dishwasher. The fact that any technology has a failure rate is not surprising. However, these technological failures give rise to a series of questions. First, did PPL take reasonable business precautions with its meter vendors to ensure that ratepayers would not absorb unreasonable risks of technological failure? Second, has PPL quantitatively demonstrated that the actual meter failure rate is sufficiently extreme to offset the costs of accelerating the investment in a new technology? Third, even if the acceleration is justified, has PPL offered any reasonable assurance that ratepayers will not be double-charged for meters, first in continuing base rates for

meters that will soon be fully depreciated and second in a smart meter charge that will recover the new massive investments? These questions are a significant cause for concern.

In addition, it is nearly impossible to read, listen to, or watch the news today without hearing a story about another company having its computer system hacked. There can be nothing more certain to cause sleepless nights at the Commission than the idea that a terrorist organization could hack into and gain control of an EDC's system. This is not being alarmist. Unfortunately, this is the reality of world that we live in today.

PPL proposes to replace its existing PLC metering system with a Radio Frequency ("RF") Mesh metering system. The total cost of PPL's proposed smart meter upgrade plan is currently \$427 million in capital costs and \$121 million in O&M costs, which will result in charges to ratepayers totaling approximately \$810 million. PPL envisions incurring the vast majority of its smart meter capital upgrade costs by 2019.

Therefore, in this proceeding, the Commission is faced with a series of difficult choices. Is it worth imposing a large financial burden on PPL's customers in order to obtain that last bit of smart meter functionality? Is it necessary to accelerate implementation of PPL's smart meter upgrades years earlier than 2025? Could PPL benefit from the experience of other EDC's by observing how their more modern smart meter technology performs before choosing a vendor? Would PPL and the Company's customers benefit by waiting for cyber security to develop better technology to thwart hackers?

## II. Procedural History

On October 15, 2008, Governor Corbett signed HB 2200 into law as Act 129 of 2008, (“Act 129”).

On June 24, 2009, the Pennsylvania Public Utility Commission (“Commission”) entered the *Smart Meter Procurement and Installation Order* at Docket No. M-2009-2092655 (“*Implementation Order*”).

On August 14, 2009, PPL Electric Utilities Corporation (“PPL” or the “Company”) filed its Initial Smart Meter Technology Procurement and Installation Plan with the Commission.

On June 20, 2010, the Commission entered an Order regarding PPL’s Initial Smart Meter Plan. *See Petition of PPL Electric Utilities Corporation for Approval of Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2009-2123945.

On May 24, 2012, PPL filed a request with the Commission to extend the Company’s grace period from December 2012 to December 2014.

On August 2, 2012, the Commission entered an Order extending PPL’s grace period until June 30, 2014.

On December 2, 2012, the Commission entered a *Smart Meter Procurement and Installation - Final Order* at Docket No. M-2009-2092655 (“*Final Order*”).

On June 30, 2014, filed its updated *Petition of PPL Electric Utilities Corporation for Approval of Its Smart Meter Technology Procurement and Installation Plan* (“*Petition*”) with the Commission.

On July 8, 2014, Administrative Law Judge (“ALJ”) Susan D. Colwell issued her First Prehearing Order.

On August 6, 2014, the Office of Small Business Advocate (“OSBA”) filed an Answer and Notice of Intervention.

On August 11, 2014, a prehearing conference was held before ALJ Colwell.

On August 11, 2014, ALJ Colwell issued her Second Prehearing Order.

On October 10, 2014, the OSBA served the Direct Testimony of Robert D. Knecht.

On November 5, 2014, ALJ Colwell issued her Third Prehearing Order.

On December 5, 2014, the OSBA served the Surrebuttal Testimony of Robert D. Knecht.

On December 16, 2014, an evidentiary hearing was held before ALJ Colwell.

The OSBA submits this Main Brief in accordance with the procedural schedule set forth in this case.

### **III. Statement of the Questions Involved**

1. Has PPL convincingly demonstrated that its Smart Meter Technology Procurement and Implementation Plan (“SMP”), that proposes to (a) replace the entire fleet of the Company’s existing customer smart meters, meters which today provide the majority of the functionality required by the legislature and the Commission, and (b) accelerate the adoption of limited additional smart meter functionality well in advance of that required by law, represents a reasonable use of ratepayer funds that is justified at this time?

OSBA’s suggested answer: No.

2. If the Commission determines that PPL’s proposed acceleration of the adoption of a second generation of smart meter technology is justified due to the failure of the Company’s first generation of smart meters, has PPL offered a reasonable plan to ensure that ratepayers are not paying both for fully depreciated first generation meters and for new second generation meters?

OSBA’s suggested answer: No.

3. If the Commission determines that PPL should immediately begin to replace its existing customer smart meters, should the Company be allowed to recover the costs of the upgraded smart meters using a flat, identical customer charge for all of PPL’s small commercial and industrial customers, where the cost to serve larger customers in the class is much higher than the cost to serve smaller customers?

OSBA’s suggested answer: No.

#### **IV. Burden of Proof**

Section 332(a) of the Code, 66 Pa. C.S. § 332(a), specifies that the party seeking a rule or order from the Commission has the burden of proof in that proceeding. The Commonwealth Court held that a “litigant’s burden of proof before administrative tribunals as well as before most civil proceedings is satisfied by establishing a preponderance of evidence which is substantial and legally credible.” *Samuel J. Lansberry, Inc. v. Pennsylvania Public Utility Commission*, 578 A.2d 600, 602 (Pa. Cmwlth. 1990).

The burden of proof is comprised of two separate and distinct burdens. The first burden is the burden of production. The burden of production informs the adjudicator which party must come forward with evidence to support a particular proposition. *See In re Loudenslager’s Estate*, 430 Pa. 33, 240 A.2d 477, 482 (1968).

The second burden is the burden of persuasion. The burden of persuasion determines which party must produce sufficient evidence to convince a judge that a fact has been established. The burden of persuasion never leaves the party upon whom it is originally placed. *Reidel v. County of Allegheny*, 633 A.2d 1325, 1329 n. 11 (Pa.Cmwlth.1993).

A party that offers a proposal not included in the original filing bears the burden of proof for that proposal. *See Brockway Glass Co. v. Pennsylvania Public Utility Commission*, 437 A.2d 1067 (Pa.Cmwlth. 1981). *See also Pennsylvania Public Utility Commission v. Duquesne Light Company*, Docket Nos. R-2013-2372129, *et al.* (Opinion and Order entered April 23, 2014).

## V. Summary of Argument

PPL's current PLC smart meters are compliant with five out of the six requirements of Section 2807(g) of the Public Utility Code, 66 Pa. C.S. Section 2807(g), as enumerated by the Commission in the *Implementation Order*. The requirement with which the PLC smart meters do not comply is the ability to provide customers with direct access to and use of their price and consumption information. PPL was unable to ascribe any quantitative benefit to achieving this functionality, and it is unlikely that customers will have a high demand for this technology, particularly in light of PPL's checkered history with time-of-use rates.

The Commission, in its *Implementation Order*, set forth "nine additional capabilities that EDCs were to consider" when proposing an SMP. PPL's current PLC smart meters meet many, but not all, of the *Implementation Order's* additional capabilities. However, the Commission stated that the additional capabilities were only to be required if a specific additional capability was cost effective. Therefore, the fact that PPL's current PLC smart meters meet many, but not all, of these additional capabilities has no direct bearing on whether the Company's *Petition* should be approved. Moreover, the fact that current PLC technology does not meet all of the functionality that the Commission would ideally see as beneficial provides no basis for *accelerating* the adoption of a second generation of smart meters with some of that functionality.

PPL's current PLC smart meters are compliant with the additional requirements set forth in the Commission's *Final Order*.

PPL has not provided any credible analysis that demonstrates that the failure rate of its current PLC smart meters justifies the acceleration of the second generation SMP and the approval of the *Petition* as filed.

PPL's analysis that replacing the current PLC smart meters now would be more economical than replacing them later is methodologically flawed and inconsistent with PPL's own analytical techniques and should be disregarded by the ALJ and the Commission.

Because the costs of the SMP substantially outweigh any quantified benefits, the adoption of a second generation of smart meters by PPL represents a net loss to ratepayers. While PPL is legally obligated to modify its existing systems in order to offer the required functionality, it has no legal obligation to accelerate that transition to the net detriment of ratepayers.

If the PPL *Petition* is adopted, PPL should be required to file a proposed credit to its Smart Meter Rider that will prevent ratepayers from unreasonably paying for new smart meters in the Smart Meter Rider while continuing to pay PPL for old smart meters in base rates for which PPL is no longer incurring costs.

If the PPL *Petition* is adopted, the smart meter flat rate charge should be split into two separate rates for GS-1 and GS-3 customers. The GS-1 customer class smart meter charge should be significantly lower than the GS-3 customer class charge.

There is no evidence that the new smart meters proposed by PPL in its *Petition* will provide any significant improvement in cyber security in comparison to the current PLC smart meter system.

## VI. Argument

### A. Compliance with Act 129 and the Implementation Order

The statutory requirements for smart meters are set forth in Section 2807 of the Public Utility Code, as follows:

As used in this section, the term 'smart meter technology' means technology, including metering technology and network communications technology capable of bidirectional communication, that records electricity usage on at least an hourly basis, including related electric distribution system upgrades to enable the technology. The technology shall provide customers with direct access to and use of price and consumption information. The technology shall also:

- (1) Directly provide customers with information on their hourly consumption.
- (2) Enable time-of-use rates and real-time price programs.
- (3) Effectively support the automatic control of the customer's electricity consumption by one or more of the following as selected by the customer:
  - (i) the customer;
  - (ii) the customer's utility; or
  - (iii) a third party engaged by the customer or the customer's utility.

66 Pa. C.S. Section 2807(g).

In its *Petition*, PPL set forth the Company's understanding of the Commission's requirements for smart meter technology:

In the Commission's *Implementation Order*, the Commission identified six smart meter capabilities that are required by Act 129. *Implementation Order*, pp. 29-30. In addition, the Commission listed nine additional capabilities that EDCs were to *consider*. *Implementation Order*, p. 30. Further, in December 2012, the Commission entered an order establishing additional requirements for smart meter plans. *Smart Meter Procurement and Installation*,

Docket No. M-2009-2092655, Final Order entered December 6, 2012.

*Petition*, at 12 (emphasis added).

With respect to the six required smart meter capabilities, PPL assesses its current meter functionality as follows:

Bidirectional Data Communication: PPL's current smart meters are compliant with this requirement. Transcript, at page 44, lines 13-16. However, new smart meters would be "better." *Petition*, at 12.

Recording Usage Data On At Least An Hourly Basis Once Per Day: PPL's current smart meters are compliant with this requirement. Transcript, at page 45, lines 3-7. However, new smart meters would "enhance the Company's ability to record usage data." *Petition*, at 12.

Providing Customers with Direct Access to and use of Price & Consumption Information: PPL is not compliant with this requirement. The Company explained the problem, as follows:

The primary deficiency of PPL Electric's existing PLC system is its inability to provide customers with direct access to price and usage information. Other EDCs in Pennsylvania are proposing to provide this functionality to customers through Home Area Network ('HAN') capability. PPL Electric has conducted a HAN pilot program. However, the Company was unable to effectively offer this functionality to pilot program customers, and the Company is not aware of a PLC solution for its system that would effectively meet this requirement.

*Petition*, at 3.

PPL asserts that the technology available in the Company's proposed smart meter upgrade will meet this requirement. *Petition*, at 13.

Providing Customers with Information on Their Hourly Consumption: PPL's current smart meters are compliant with this requirement. Transcript, at page 45, lines 13-19. *Petition*, at 13.

Enabling Time-of-Use Rates And Real-Time Pricing Options: PPL's current smart meters are compliant with this requirement. Transcript, at page 46, line 25, to page 47, line 8. *Petition*, at 13.

Supporting the Automatic Control of the Customers' Electric Consumption: PPL's current smart meters are compliant with this requirement. Transcript, at page 47, lines 12-19. *Petition*, at 14.

OSBA witness Robert D. Knecht summarized PPL's current level of compliance, as follows:

The *Implementation Order* establishes six types of functionality that are required of smart meters. In its response to OSBA-I-4, PPL Electric confirms that the existing system complies with five of the six requirements. The specific requirement with which the current system does not comply is to provide customers with direct access to and use of their price and consumption information.

OSBA Statement No. 1, at 4 (footnote omitted).

With respect to this limited benefit, PPL offers no quantitative evidence that this functionality will provide a benefit to ratepayers. Moreover, PPL is less likely to have extensive customer interest in the new functionality than do the other Pennsylvania EDCs. Giving customers more real time information regarding their consumption levels and market prices is only going to have value if customers will use that information to modify their consumption levels in reaction to price signals. Therefore, only customers on time-of-use rates or real-time pricing can take advantage of this functionality. In light of the continuing debacle that is PPL's time-of-use rates history, there is virtually no customer interest in this functionality. OSBA Statement No. 1, at 7-8. It is possible that, as they slowly forget about PPL's painful history with time-of-use rates, ratepayers may again gradually develop an interest in having real time access

to market prices. However, such a change would hardly justify accelerating the imposition of a substantial cost burden on ratepayers as proposed by PPL in this proceeding.

In its *Petition*, PPL also analyzed the “nine additional capabilities that EDCs were to consider” set forth in the *Implementation Order*. Specifically, the *Implementation Order* stated:

In addition, each plan filing shall include the individual incremental costs for deploying and operating the following smart meter technology capabilities:

- Ability to remotely disconnect and reconnect.
- Ability to provide 15 minute or shorter interval data to customers, EGSs, third parties and an RTO on a daily basis, consistent with the data availability, transfer and security standards adopted by the RTO.
- On board meter storage of meter data that complies with nationally recognized non proprietary standards such as ANSI C12.19 and C12.22 tables.
- Open standards and protocols that comply with nationally recognized non proprietary standards, such as IEEE 802.15.4.
- Ability to upgrade these minimum capabilities as technology advances and becomes economically feasible.
- Ability to monitor voltage at each meter and report data in a manner that allows an EDC to react to the information.
- Ability to remotely reprogram the meter.
- Ability to communicate outages and restorations.
- Ability to support net metering of customer generators.

The deployment and operating costs to be presented shall include a breakdown of all incremental costs and any associated potential operational and maintenance cost savings for each functionality and configuration. All cost estimates must be supported by estimates from at least two vendors where available. To the extent that an EDC or another party demonstrates that a particular Commission imposed requirement is not cost effective, the

Commission will have the option of waiving a particular requirement for that EDC or all EDCs.

*Implementation Order*, at 30.

The *Petition* sets forth PPL's view of whether the Company's current PLC smart meters meet the additional capabilities identified in the *Implementation Order*. See *Petition*, at 14-17. Similar to the Section 2807(g) six requirements, PPL's current PLC smart meters meet many, but not all, of the *Implementation Order's* additional capabilities. Nonetheless, the Commission made it clear that these additional capabilities were only to be "imposed" if a specific additional capability was "cost effective." Thus, the fact that PPL's current PLC smart meters meet many, but not all, of these additional capabilities has no bearing on whether the Company's proposed smart meter upgrade should be implemented. Moreover, the fact that current technology does not meet all of the functionality that the Commission would ideally see as beneficial provides no basis for *accelerating* the adoption of a second generation of smart meters with some of that functionality.

Finally, the *Petition* also sets forth PPL's view of whether the Company's current PLC smart meters meet the additional requirements set forth in the Commission's *Final Order*. *Petition*, at 17. PPL concludes that the Company's current PLC smart meters are compliant with the four additional requirements set forth in the *Final Order*. *Id.*

Simply put, PPL's ratepayers already receive the vast majority of the benefits of smart meter technology, and they are paying for them in base rates charges.

**B. Technology Issues – RF Mesh Versus PLC**

The OSBA is not addressing this issue in its Initial Brief. The OSBA reserves the right to respond to any party regarding this issue in its Reply Brief.

### C. Meter Failures

PPL currently has approximately 1.4 million customers, all with smart meters. *See Petition*, at 4, Paragraph 1. *See also, Petition*, at 8, Paragraph 13.

In response to OSBA discovery, PPL reports the following meter failure rate:

25,634 in 2012,

28,234 in 2013, and

30,801 estimated for 2014.

Transcript, at page 159, lines 1-20.

In its *Petition*, PPL asserts: “For calendar year 2013, the Company’s meters failed at a rate of approximately four times the industry standard.” *Petition*, at 9, Paragraph 14. Mr.

Knecht responded to the Company’s assertion, as follows:

[I]t is not clear that PPL Electric compares apples to apples in this assessment. According to OCA-VI-2, the Company’s actual failure rate is 2 percent, for meters which have been in place for more than a decade. This compares to a 0.41 percent failure rate for the new technology, based on vendor information. The Company has not provided sufficient detail to evaluate whether the vendor-supplied information is comparably based on actual (rather than optimistic vendor forecast) experience. Also it is not clear that the evidence upon which the vendors relied is comparably based on actual 10-year-old meters.

OSBA Statement No. 1, at 7.

PPL witness Christine E. Ogozaly confirmed, under cross examination, that the projected smart meter failure rate was 2.35 percent for 2012. This is less than the failure rate of 2.5% predicted by the Company’s smart meter vendor, Aclara. Transcript, at page 89, lines 14-23.

As PPL presents virtually no quantitative evidence relating to any benefits of the new smart meters, the Company’s only real justification for accelerating the massive investment program is the failure rate of its first generation meters. In that respect, the Company’s

quantitative analysis appears to assume a rapid acceleration of meter failure that is not yet evident in the actual data. As set forth above, PPL admits that its actual meter failure rate has drifted upward from 25,634 in 2012 to 28,234 in 2013, and to 30,801 (forecast year-end) in 2014. However, in the only quantitative justification that PPL offers in support of its program acceleration, Ms. Ogozaly assumes that meter failures will be 48,154 in 2015, 53,213 in 2016, and 58,804 in 2017, all far above recent experience. The OSBA submits that the Company's projections are not consistent with the facts.

Mr. Knecht summarized the OSBA's position on the Company's smart meter failure rate, as follows:

At pages 6-7 [of Mr. Knecht's Direct Testimony], I acknowledged that a high failure rate of the first generation of smart meters might justify an acceleration of the transition to the second generation, but I concluded that PPL Electric had not presented any quantitative evidence supporting such an approach.

Moreover, neither I nor the OSBA has any interest in deferring the adoption of a second generation of smart meters if doing so will result in both higher costs for ratepayers and the significant customer inconvenience related to extensive meter failure contemplated in Ms. Ogozaly's rebuttal testimony at page 7.

OSBA Statement No. 2, at 1-2.

The OSBA confirms that Mr. Knecht's statement is the position of our office. The OSBA would fully support a plan that meets the legal requirements for smart meters at a minimum cost to ratepayers. However, as detailed earlier, it is PPL's burden to demonstrate that its program does, in fact, minimize costs to ratepayers. PPL has simply failed to do so.

In that respect, Mr. Knecht continued:

I note that Ms. Ogozaly presents a set of exhibits which purportedly demonstrate that the meter failure rate for the first generation of meters (based on the PLC technology) is high and rising, and that the cost of accelerating the deployment of the

second generation of smart meters is lower than the cost of deferring deployment and replacing existing meters with existing technology.

However, Ms. Ogozaly does not present a comparison of the ratepayer impact of these alternative scenarios, and Ms. Ogozaly does not present the combined impact of replacing existing meters and implementing new smart meters for any of the scenarios evaluated.

*Id.*, at 2.

The OSBA acknowledges that PPL is experiencing the failure of a percentage of its current PLC smart meters. However, the mere fact that a smart meter technology is experiencing failures does not require that “the baby is thrown out with the bath water” and all such smart meters must be immediately replaced. Even the Company admits that the new technology will have a failure rate as well.

Therefore, further analysis is required to determine whether it is appropriate to upgrade all of PPL’s current PLC smart meters, or whether simply replacing the failing meters for now would be more cost effective for ratepayers.

#### **D. Implementation Timeline**

PPL is required to have smart meters that are fully compliant with Section 2807(g) by the year 2025. Transcript, at page 30, lines 14-24. Mr. Knecht observed:

The Company indicates that the SMP is necessary to comply with Act 129. However, the Company indicates that it is obligated to comply by April 2025, whereas the Company’s proposal will result in substantial compliance by 2019 and full compliance by 2021.

OSBA Statement No. 1, at 4.

Mr. Knecht continued, as follows:

Thus, I conclude that the Company’s proposal to accelerate compliance by four to six years must be justified by factors other than meeting its legal obligations. In general, I would normally

expect that such a justification would take the form of a thorough cost-benefit assessment.

*Id.*, at 4-5.

The Company got around to providing something of a quantitative cost-benefit assessment in the Rebuttal Testimony of Ms. Ogozaly to justify the acceleration of PPL's proposed SMP. In the OSBA's view, the Company's failure to provide any credible quantitative justification for its massive investment program prior to the filing of rebuttal testimony should, in itself, cause the Company's proposal to be rejected as insufficiently supported. OSBA was not provided with sufficient time to fully evaluate this claim, conduct discovery, and respond fully in testimony. As noted by Mr. Knecht, OSBA was allotted only two weeks to respond to the only quantitative analysis submitted by the Company, and those two weeks included the two-day Thanksgiving holiday and a one day government shutdown for snow. OSBA Statement No. 2, at 2. Therefore, on one hand, the Company's *Petition* could be rejected on procedural grounds. On the other hand, this belated filing of evidence clearly demonstrates the lack of substantive evidence underpinning PPL's *Petition*. In addition, it might reasonably be inferred that PPL did not want to admit in its *Petition* that the real reason it was accelerating the adoption of a second generation of smart meters was not for the benefits of improved functionality for ratepayers but in order for PPL to avoid incurring base rates costs to replace the failing first generation meters.

To the extent that the Commission determines that the parties have been afforded a reasonable opportunity to respond to PPL's untimely quantitative analysis, the OSBA submits the following. PPL's rebuttal analysis was designed to attempt to demonstrate that the savings that PPL would be able to achieve associated with *not* having to replace failing PLC meters over

the next few years would outweigh the additional costs that ratepayers would have to bear associated with accelerating the adoption of a second generation of smart meters.

As noted earlier, the Company's "analysis" was not done in a net present value framework. Attached to Ms. Ogozaly's Rebuttal Testimony was Exhibit CEO-1R. Mr. Knecht summarized CEO-1R, as follows:

Exhibit CEO-1R compares the capital and O&M costs for the SMP under an as-filed scenario, a 2-year delay scenario, and a 4-year delay scenario. Unfortunately, this analysis has numerous problems, rendering it of little value for assessing the relative advantages of the three scenarios.

OSBA Statement No. 2, at 3.

Mr. Knecht sets forth a series of problems with CEO-1R:

Exhibit CEO 1-R includes only costs associated with the adoption of second generation RF Mesh smart meters, and excludes the impact of replacing failing first generation PLC meters.

The '4-year' delay scenario appears to be a five-year delay, since the reported investment cash flows begin in 2020 and end in 2026, compared to the filed version which begins in 2015 and ends in 2021. (The Company's '4-year delay' scenario does not appear to be consistent with PPL Electric's own interpretation of its legal obligations under Act 129, as the smart meters do not appear to be fully installed until 2026.)

The cost inflation assumptions are not presented and are not at all clear. According to Ms. Ogozaly, she has incorporated some measure of cost inflation in the delay scenarios, as noted at page 8 of her rebuttal testimony. While Ms. Ogozaly uses a 1.0 percent annual inflation rate for PLC meters in Exhibit CEO 3-R, she provides no indication of or basis for the cost inflation for RF Mesh meters in Exhibit CEO 1-R. Based on my calculations, the implicit inflation factors between the filed scenario and the delay scenarios range from annual rates of about 2.3 percent for the early years of the project to about 0.1 percent for the late years. No evidence supporting these inflation rates is offered.

The analysis fails to recognize that, in the filed scenario, PPL Electric will need to replace its second generation meters earlier

than it will in the delay scenarios, at the end of the 15-year life for the new meters. No provision is made for these cost savings for the delay scenarios.

The analysis, like the Company's SMP in general, assumes that new investment in 5-year plant will continue to operate for the full forecast period, well beyond the 5-year life of the equipment. In light of PPL Electric's experience with its first generation meters, this assumption may be unduly optimistic. Adding the cost of replacing the 5-year plant into all of the scenarios further increases the cost to ratepayers associated with the acceleration scenario.

The analysis compares the costs of the different scenarios using a simple summation of costs, essentially assigning a zero value to the time value of money as far as ratepayers are concerned. Thus, costs are higher in the scenario in which investment is deferred simply as a result of inflation. Of course, PPL Electric requires that it be compensated for the time value of money in requiring a pre-tax rate of return of 11.78 percent. In effect, when PPL Electric makes cash expenditures in advance of receiving payment for those expenditures, it expects to earn a return based on its cost of capital. When it requires ratepayers to make payments earlier than otherwise, the Company assumes that ratepayers have a zero cost of capital and deserve no compensation for accelerating their payments. PPL Electric's approach is both analytically incorrect and inequitable.

OSBA Statement No. 2, at 3-4 (footnote omitted).<sup>1</sup>

In summary, PPL argues that its SMP should be implemented with a target date of 2021 instead of 2025 because: (1) the Company's current PLC smart meters do not have 100 percent of the functionality required by Section 2807(g); (2) the Company's current PLC smart meters are failing; and (3) Ms. Ogozaly's analysis that replacing the current PLC smart meters now would be more economical than replacing them later.

However, as Mr. Knecht demonstrated, Ms. Ogozaly's analysis is deeply flawed, and heavily biased in favor of the result that PPL wants. Perhaps the most telling example of the biased nature of PPL's analysis is the fact that, in its rebuttal testimony, the Company criticizes

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<sup>1</sup> In regard to Mr. Knecht's analysis, the OSBA reiterates its earlier observation that the meter failure rates included in Ms. Ogozaly's analysis are not consistent with actual historical failure rates as observed in 2013 and 2014.

Mr. Knecht's use of net present value ("NPV") analysis for evaluating the net costs and benefits of the smart meter program. PPL Statement No. 4-R, at 11. However, as Mr. Knecht observed, PPL's own witness used a NPV approach to justify the initial smart meter investment program. OSBA Statement No. 2, at 5.

As illustrated in the next section, the cost to PPL's ratepayers of accelerating the implementation of the Company's proposed smart meter upgrades is significant with little to no concomitant benefit flowing to those ratepayers.

#### **E. Cost Savings/Quantification of Benefits**

In regard to the benefits that the ratepayers of PPL will reap from the Company's proposed SMP, Mr. Knecht concluded:

While PPL Electric identifies numerous potential benefits, it quantifies very few.

First, PPL Electric indicates that the proposed system will provide some additional benefits with respect to the legally-required smart meter functionalities with which it already complies. However, in response to OSBA-I-4, PPL Electric was not able to quantify the benefits for any of those improvements.

Second, PPL Electric also identifies a number of benefits associated with the additional features of smart meter technology that the Commission has determined are worthy of consideration. However, as detailed in its response to OSBA-I-6, the only benefit that PPL Electric has quantified is an annual savings of \$2.5 million per year associated with remote connect/disconnect capability.

Annual savings of \$2.5 million are insufficient to even cover the incremental O&M costs that the Company forecasts for the plan (from 2017 forward), and therefore provide no return at all to ratepayers related to the more than \$400 million in proposed capital expenditures.

OSBA Statement No. 1, at 6.

The record clearly indicates that the \$2.5 million in annual savings are the only quantifiable benefits that PPL is able to identify. During the cross examination of PPL witness David R. Glenwright by attorney Christy Appleby from the Office of Consumer Advocate, the following exchange took place:

Q. What incremental and quantifiable benefits will customers receive through the accelerated deployment of the Smart Meters?

A. PPL was able to quantify benefits associated with the use of the remote connect and disconnect switches. Those benefits were approximately 2.5 million per year starting after full deployment in 2020.

Q. Starting after deployment in 2020?

A. Yes.

Q. And what incremental and quantifiable benefits can PPL, as a corporation, expect to achieve through the accelerated deployment?

A. It would be the same quantifiable benefits. They are the only quantifiable benefits that we have identified.

Transcript, at page 39, line 11, through page 40, line 1.

Thus, the financial benefits to the Company's ratepayers are *de minimis* and far in the future. The question then turns to the negative financial impact that PPL's SMP will have upon its ratepayers. Mr. Knecht created a table to illustrate that financial impact.

Mr. Knecht explained the underlying assumptions used to create that table, as follows:

Exhibit IEc-S1 includes an assessment of the Company's filed scenario with investment acceleration and a scenario that complies with the timing requirements of Act 129. For both scenarios, I calculated the ratepayer impact with and without the effects of the meter replacement costs. The analysis includes the following assumptions and judgments:

The PPL filed impacts are based on the Company's response to OCA-V-3 (Attachment), which appears to be consistent with Exhibit CEO 1-R.

The incremental investment costs in replacement of failed PLC meters is based on Exhibit CEO 3-R.

O&M savings of \$2.5 million per year begin in 2020 in the PPL Electric filed scenario and 2024 in the delay scenario, and are inflated at 1.0 percent per year.

Deferred income tax effects are not reflected in any of the scenarios.

Because the Company's 4-year delay scenario appears to be a 5-year delay scenario, and because the inflation assumptions in the Company's analysis show no obvious pattern, I calculated the effects of the delay in the filed SMP plan by applying a specific inflation factor to the Company's filed costs. Consistent with Ms. Ogozaly's assumption for PLC meter cost inflation, I use 1.0 percent per year, but I test the analysis for sensitivity to that parameter.

To make the scenarios comparable, I added four years of revenue requirement to the Company's proposed scenario, based on the financial equivalent of the average annual cost of the 20-year SMP proposed by the Company, adjusted for inflation. In this way, both the Company's proposal and the four-year delay are comparably evaluated over the 2015 to 2038 time period.

In my direct testimony, I calculated the net present value of the revenue requirement impacts using the Company's pre-tax weighted average cost of capital, since these are pre-tax cash flows. I retain that parameter in this analysis. However, I have tested the results for sensitivity to this assumption, using lower capital costs that may be more reflective of the cost of capital for residential customers.

OSBA Statement No. 2, at 6-7. Table IEc-S1 is set forth below:

<b>Table IEC-S1 Benefit to Ratepayers of Four Year SMP Implementation Delay Net Present Value (\$mm)</b>		
	<b>Without PLC Replacement Costs</b>	<b>With PLC Replacement Costs</b>
Base Case	\$123	\$89
Inflation @ 0%	\$130	\$95
Inflation @ 2%	\$117	\$82
Inflation @ 3%	\$110	\$75
Base Case	\$123	\$89
Discount Rate 10%	\$128	\$87
Discount Rate 8%	\$134	\$85
Discount Rate 6%	\$140	\$80
Source: Simulation of Exhibit IEC-S1		

OSBA Statement No. 2, at 8.

Mr. Knecht summarized the financial impact demonstrated by Table IEC-S1:

My analysis continues to show that accelerating the investment in smart meters by four years beyond that which is required by law results in a large negative present value impact on ratepayers. Without taking into account the replacement of failed meters, the benefit to ratepayers is \$123 million. If replacing failed meters is factored into the analysis, the benefit of the delay falls to \$89 million, but still remains very favorable for ratepayers.

OSBA Statement No. 2, at 7.

Thus, based on PPL's own assessment of costs and benefits, accelerating the adoption of a second generation of smart meters will result in a substantial increase in costs to ratepayers

under a wide variety of discount rate and inflation assumptions. If PPL goes forward with its plan to immediately implement its smart meter upgrades, the Company's customers will be burdened with another \$123 million (or \$89 million, even if ratepayers are obligated to absorb the full cost of the replacement meters whose costs are currently reflected in base rates). That hardly seems justified in order to gain a modicum of additional smart meter capabilities four years earlier than necessary.

Since the Company readily admits that the quantifiable benefits of accelerating the adoption of a second generation of smart meters do not justify the costs involved, the only credible justification for the acceleration is the avoided costs associated with the failure of the first generation of meters. However, not only does the Company not demonstrate that there are ratepayer savings associated with the acceleration, it certainly appears that it is the Company's intent to double charge ratepayers for meters costs.

PPL installed its first generation of smart meters between 2002 and 2004. OSBA Statement No. 1, at 2. At the outset, when PPL first "sold" the Commission on the advantages of smart meter conversion, the Company anticipated that the life of the new meters would be 28 years. Transcript, at page 83, lines 11-18. However, in 2005, the Company determined that the depreciable life of the meters needed to be shortened to 15 years, with the adoption of electronic communication technology. OCA Statement No. 1-S, at 6. This shorter life was therefore presumably reflected in revenue requirements established in the Company's base rates cases in 2007, 2010 and 2012. Given the 15-year depreciable life of these assets, the costs associated with the original meters will fall to zero between 2017 and 2019. However, the current cost for the existing smart meters included in PPL's current rates is approximately \$30.9 million per year.

Transcript, at page 122, line 2, through page 123, line 2; OSBA On-the-Record Data Request No. 1.

OSBA observes first that the Company has done little to protect ratepayers with respect to the costs associated with failing meters. As Ms. Ogozaly admits, the Company only arranged for a one- or two-year warranty from the vendor, and appears to have only been able to collect about \$1.5 million in compensation for the excessive meter failure that the Company has experienced. Transcript, at page 87, line 15, through page 88, line 6. The OSBA therefore respectfully submits that PPL has not provided reasonable protection to ratepayers regarding premature meter failure, and that costs for the premature meter failure experienced to date should not be included in ratepayers' revenue requirements. Furthermore, the Company cannot simply assume that replacement PLC meter costs incurred through 2014, only twelve years into the first generation plan, are stranded costs that it will eventually be allowed to recover in base rates.

Second, under the Company's proposal, it is clear that ratepayers will be paying for meters twice, unless and until PPL files a base rates case that reflects the full depreciation of the original meter investment. As set forth earlier, the existing base rate charge for smart meters reflects \$30.9 million in costs for first generation meters, while the costs will fall to zero between 2017 and 2019. In the meantime, PPL proposes to recover costs for the second generation of smart meters in its reconcilable Smart Meter Rider charges. Thus, absent a base rates proceeding, by 2019 ratepayers will be paying \$30.9 million per year for costs no longer incurred by PPL, plus the costs for all the second generation meters which are loaded into the Smart Meter Rider.

PPL makes no proposal at all regarding how such inequitable double charging should be avoided. The OSBA therefore respectfully submits that, if the Commission determines that

accelerating the SMP is, despite all the evidence to the contrary, justified by the failure of the existing meter fleet, the Commission direct PPL to develop and file a proposal which addresses the issue of double charging costs.

In surrebuttal testimony, Mr. Knecht offered one such proposal. Mr. Knecht suggests that a credit be provided to the Smart Meter Rider equal to the incremental costs being imposed on ratepayers associated with PPL's need to accelerate the second generation SMP. The essence of this approach is that if imposing some \$123 million in additional present value costs through the smart meter charge is justified by base rates savings, then PPL is pocketing at least \$123 million in reduced base rates costs. Ratepayers should not be required to pay both for the new meters, without actually seeing any reduction in their base rates costs which justify the new investment. OSBA Statement No. 2, at 9. As Mr. Knecht stated in the hearing:

PPL's base rates currently include the cost for the first-generation Smart Meters, and those costs certainly, as I believe Ms. Johnson referred to earlier today, for the initial investment, will be near zero before the end of the decade. Therefore, the savings that are justifying imposing a cost of 120 million are related to base rates savings. So I calculated an offset to the Smart Meter costs to reflect those costs that would otherwise be reflected in base rates case at least until such time as the company can reflect the fact that the existing meter base – rate base is fully depreciated.

Transcript, at page 168, line 24, through page 169, line 10.

Nevertheless, the OSBA acknowledges that such a credit could be calculated in different ways. For example, the OSBA observes that Mr. Knecht calculates the implied base rates savings at \$24.6 million per year, whereas PPL will be recovering \$30.9 million per year in revenues associated with fully depreciated meters.

Thus, if the Commission determines that the proposed second generation SMP is, in fact, justified by base rates savings, the OSBA respectfully recommends that the Commission direct

PPL to develop a mechanism that will avoid the imposition of duplicative costs on ratepayers. The Commission should require PPL to file a proposed credit to its Smart Meter Rider that will prevent ratepayers from unreasonably paying for new smart meters in the Smart Meter Rider while continuing to pay PPL for old smart meters in base rates for which PPL is no longer incurring costs.

**F. Smart Meter Charge Issues**

1. Calculation of the Smart Meter Charge

The OSBA is not addressing this issue in its Initial Brief. The OSBA reserves the right to respond to any party regarding this issue in its Reply Brief.

2. Proposed Modifications to the Small C&I Smart Meter Charge

If the Commission decides to implement PPL's proposed SMP at this time, the OSBA recommends a change to the Small C&I smart meter charge.

In its *Petition*, PPL proposes to recover the costs of its SMP by replacing the current per-kWh charge in the Smart Meter Rider ("SMR") with a flat, per-customer charge. That charge will be the same for all Small C&I customers. Mr. Knecht observed:

As PPL Electric readily admits that the cost to serve larger customers in the class is much higher than the cost to serve smaller customers, the Company's proposal will inaccurately and inequitably impose an unreasonable burden on the smaller customers within the class.

OSBA Statement No. 1, at 8.

Mr. Knecht explained the specifics of the problem, as follows:

Small C&I customers vary substantially in size. A large number of customers in the Small C&I rate class group are similar in size to Residential customers or modestly larger, with loads in the 5 to 20 kW range.

However, the Small C&I rate class group includes large secondary voltage customers that can have peak demands in excess of 500 kW. Moreover, the Company acknowledges that there is a substantial range in cost from customer to customer within the rate class group.

According to OSBA-I-7, nearly half of the Small C&I customers can be served by a meter with an estimated cost of \$135, whereas meter costs for other customers can cost as much as \$399, nearly three times as much.

By charging the same amount to all customers in the class, PPL Electric is implicitly asking customers who require \$135 meters to contribute to the costs for the \$399 meters.

OSBA Statement No. 1, at 8-9 (footnote omitted) (formatting added).

To correct this inequity, the OSBA respectfully recommends two changes to the SMR. First, split the flat rate charge into two separate rates for GS-1 and GS-3 customers. Second, have PPL calculate a separate rate for the GS-1 customer class (which is less expensive to serve) and the GS-3 customer class (which is more expensive to serve).

#### **G. Communications Strategy**

The OSBA is not addressing this issue in its Initial Brief. The OSBA reserves the right to respond to any party regarding this issue in its Reply Brief.

#### **H. Cyber Security Issues**

The following exchange took place between the OSBA attorney and PPL witness Kent Simendinger:

Q. Is it a fair summary that on page four [of his Rejoinder Testimony], you argue that accelerating the adoption of the next generation of Smart Meters will provide some additional security to PPL's customers?

A. I am putting forth that the Smart Meters, being smarter, having the enhanced security features such as those listed there, that

would help benefit the company and their security and their data privacy.

Q. Okay. Could you – I'll explain this a little better. Could you give us an example of the current data security risks that PPL customers face with the currently installed meters?

\* \* \*

A: So that the current system data is transmitted from point A to point B and is protected accordingly in transit. So, we have controls in place to mitigate transmission and protection of that data. Smart Meters have additional layers of protection, monitoring capabilities.

Q: Well, as anyone who reads the news today, you hear about companies being hacked by various groups nationally and internationally. So, what kind of data -- and if we need to go on the proprietary record, that's fine -- what kind of data is currently at risk? For example, personal information, customers' credit card information, bank account information, social security?

A: The current information from a customer standpoint has to do with the basic information. PII, personally identified information, might include their name, address, account numbers, that sort of thing, as well as their usage data.

Q. And would you say if it's at risk today, whatever threat level you assign that, is it going to be somewhat less at risk with the new Smart Meters, significantly less at risk? Give us some idea how – how unsafe we are today and how safe we will be, from PPL's standpoint.

A. I could never say we're fully safe, but I can say that the features that are offered from how I understand the technology are better able to transmit and detect and monitor for anomalous behaviors. So, that would put us in a better position. I can't say it's significant or less significant. It's commensurate with increasing technology capability to help us identify and mitigate threats.

Transcript, at page 102, line 14, through page 104, line 18.

ALJ Colwell and the Commission can take judicial notice of the fact that the "hacking" of computer systems and cyber attacks are being reported regularly in the news. Recent hacks

that have made the news would pale in comparison to a scenario where a terrorist organization is able to penetrate the RF Mesh proposed by PPL in this proceeding.

The OSBA is cognizant that, at the time of this writing, there is no “magic bullet” to solve all the issues surrounding cyber security. Nevertheless, PPL is proposing an extremely expensive upgrade to its existing smart meter system. The fact that Mr. Simendinger cannot provide a quantitative answer as to whether the new smart meters would provide significantly more protection from hackers is not a knock on Mr. Simendinger, it simply illustrates how complex and difficult this problem is.

There are many reasons that the OSBA is advocating for a delay in the implementation of PPL SMP. In regards to cyber security, the OSBA advocates to delay that implementation so that PPL can observe the level of success other Commonwealth EDCs have with their new smart meter platforms. That delay may allow PPL to benefit from new developments in cyber security that will benefit not only the Company itself, but also PPL’s ratepayers.

**I. Data Privacy Issues**

The OSBA is not addressing this issue in its Initial Brief beyond what is set forth above in the section on cyber security. The OSBA reserves the right to respond to any party regarding this issue in its Reply Brief.

**J. Remote Disconnect, Service Limiting and Pre-Pay Metering Issues**

The OSBA is not addressing this issue in its Initial Brief. The OSBA reserves the right to respond to any party regarding this issue in its Reply Brief.

**K. Miscellaneous Issues**

The OSBA is not addressing any miscellaneous issues in its Initial Brief. The OSBA reserves the right to respond to any miscellaneous issues raised by any party in its Reply Brief.

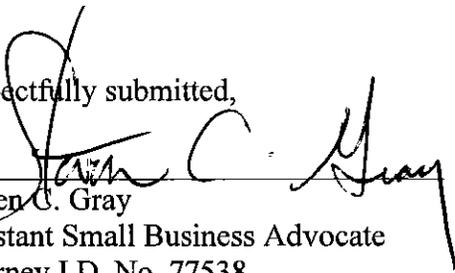
## VII. Conclusion

Wherefore, the OSBA respectfully requests that the ALJ and the Commission reject the PPL *Petition* in its entirety.

In the alternative, if the ALJ and the Commission decide that PPL's *Petition* shall be implemented, the OSBA respectfully requests that the ALJ and the Commission:

- 1) Require PPL to file a proposed credit to its Smart Meter Rider that will prevent ratepayers from unreasonably paying for new smart meters in the Smart Meter Rider while continuing to pay PPL for old smart meters in base rates for which PPL is no longer incurring costs; and
- 2) Require PPL to adjust its smart meter charge so that the GS-1 customers in the Company's small commercial and industrial class pay significantly less than the GS-3 in that same customer class.

Respectfully submitted,

  
\_\_\_\_\_  
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Dated: January 13, 2015

### **Proposed Findings of Fact**

1) PPL began installing its power line carrier (“PLC”) smart meters in 2002, and those meters are still in place. OSBA Statement No. 1, at 2.

2) PPL is depreciating its PLC meters using a 15-year life, and the initial investment in PLC meters will be fully depreciated by 2019. Transcript, at 125.

3) PLC Meters costs are currently reflected in base rates, with a revenue requirement of approximately \$30.9 million per year. Transcript, at 122; OSBA On-the-Record Data Request No. 1.

4) PPL’s PLC meters are compliant with five the six Commission-mandated functionalities required of smart meters, and are not compliant only with the requirement that smart meters provide customers with direct access to their consumption and price information. OSBA Statement No. 1, at 4.

5) In its Smart Meter Technology Procurement and Implementation Plan (“SMP”) filed in this proceeding, PPL proposes to replace all of its existing PLC meters and various associated systems with a Radio Frequency Mesh (“RF Mesh”) system. *Petition*, at 2.

6) PPL proposes that the SMP will be substantially compliant with legal requirements for smart meters by 2019 and fully compliant by 2021. PPL is not legally obligated to be compliant until April 2025. OSBA Statement No. 1, at 4.

7) The total cost for PPL’s proposed SMP is approximately \$427 million in capital costs and \$121 million in O&M costs, which will result in charges to ratepayers totaling approximately \$810 million. OSBA Statement No. 1, at 4.

- 8) PPL proposes to recover SMP costs outside of base rates in its Smart Meter Rider ("SMR"). *Petition*, at Paragraphs 70-71.
- 9) At the peak level of SMR charges in 2019, PPL forecasts that it will charge ratepayers \$112 million per year, or \$59 per year for the average residential customer. OSBA Statement No. 1, at 4.
- 10) PPL quantifies \$2.5 million in annual savings related to its SMP. Transcript, page 39, line 11 through page 40, line 1.
- 11) PPL's quantified savings are insufficient to economically justify the acceleration of its SMP investment in advance of legal requirements. OSBA Statement No. 1 at 6.
- 12) PPL's existing PLC meters are failing at a rate of 25,634 meters in 2012, 28,234 meters in 2013, and 30,801 forecast for 2014. OSBA Statement No. 2, at 5.
- 13) PPL forecasts that its PLC meter failure rates will be 48,154 in 2015, 53,213 in 2016, and 58,804 in 2017. PPL Electric Exhibit CEO 2-R.
- 14) PPL employed net present value ("NPV") analysis to justify its initial adoption of smart meter systems. OSBA Statement No. 2, at 5.
- 15) PPL has not employed NPV analysis to justify its acceleration of the investment in the RF Mesh system. OSBA Statement No. 2, at 4.
- 16) PPL's proposed acceleration of its smart meter plan by four years earlier than that required by law has a net present value of costs to the Company's ratepayers of \$123 million. If replacing failed meters is added into the analysis, acceleration of its smart meter plan costs the Company's ratepayers \$89 million. OSBA Statement No. 2, at 7.

17) The cost to serve larger customers in the small commercial and industrial class is much higher than the cost to serve smaller customers in that class. OSBA Statement No. 1, at 8.

18) In its 2012 base rates proceeding at Docket No. R-2012-2290597, PPL calculated that the cost for the average Rate GS-3 meter was 5.6 times higher than the cost for the average Rate GS-1 meter. OSBA Statement No. 2, at 10.

19) PPL cannot demonstrate that the new smart meters would provide significantly more cyber security protection than the current PLC smart meters. Transcript, page 102, line 14, to page 104, line 18.

### Proposed Conclusions of Law

- 1) All rates charged by PPL must be just and reasonable. 66 Pa. C.S. § 1301.
- 2) On October 15, 2008, Governor Corbett signed HB 2200 into law as Act 129 of 2008.
- 3) On June 24, 2009, the Pennsylvania Public Utility Commission (“Commission”) entered the *Smart Meter Procurement and Installation Order* at Docket No. M-2009-2092655 (“*Implementation Order*”).
- 4) On December 2, 2012, the Commission entered a *Smart Meter Procurement and Installation - Final Order* at Docket No. M-2009-2092655 (“*Final Order*”).
- 5) On June 30, 2014, filed a *Petition of PPL Electric Utilities Corporation for Approval of Its Smart Meter Technology Procurement and Installation Plan* (“*Petition*”) with the Commission.
- 6) The statutory requirements for smart meters are set forth in Section 2807(g) of the Public Utility Code, 66 Pa. C.S. Section 2807(g).
- 7) The *Implementation Order* establishes six types of functionality that are required of smart meters. OSBA Statement No. 1, at 4.
- 8) PPL confirms that its current PLC smart meters meet five of the six criteria set forth in the *Implementation Order* and Section 2807(g). OSBA Statement No. 1, at 4.

- 9) The Commission, in its *Implementation Order*, set forth nine additional smart meter capabilities that Electric Distribution Companies EDCs were to consider implementing. *Implementation Order*, at 30.
- 10) PPL's current PLC smart meters meet many, but not all, of the *Implementation Order's* additional capabilities. *Petition*, at 14-17.
- 11) The Commission, in its *Final Order*, set forth additional requirements for an EDC's smart meter plan. *Petition*, at 17.
- 12) PPL's current PLC smart meters meet all of the *Final Order's* additional requirements. *Petition*, at 17.
- 13) PPL is required to have smart meters that are fully compliant with Section 2807(g) by the year 2025. Transcript, page 30, lines 14-24.

### **Proposed Ordering Paragraphs**

IT IS RECOMMENDED:

1) That PPL's proposed Smart Meter Plans is rejected as being unjust, unreasonable, exhibiting no material benefit to ratepayers, being financially burdensome to ratepayers, and untimely filed.

In the alternative:

2) Require PPL to file a proposed credit to its Smart Meter Rider that will prevent ratepayers from unreasonably paying for new smart meters in the Smart Meter Rider while continuing to pay PPL for old smart meters in base rates for which PPL is no longer incurring costs; and

3) Require PPL to adjust its smart meter charge so that the GS-1 customers in the Company's small commercial and industrial class pay significantly less than the GS-3 in that same customer class.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Petition of PPL Electric Utilities Corporation** :  
**For Approval of a Smart Meter** : **Docket No. M-2014-2430781**  
**Technology Procurement and Installation** :  
**Plan** :

**CERTIFICATE OF SERVICE**

I certify that I am serving two copies of the foregoing document, on behalf of the Office of Small Business Advocate, by e-mail and first-class mail (unless otherwise indicated) upon the persons addressed below:

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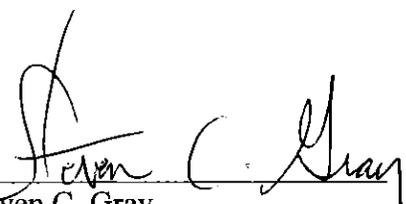
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