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June 11, 2018

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

RE: Art Larson v. PECO Energy Company
Docket No. C-2017-2615206

Dear Secretary Chiavetta:

PECO Energy Company's Brief in the above-referenced proceeding is attached for filing.

Very truly yours,



Ward L. Smith
Assistant General Counsel

WLS/adz
Attachment

c: Honorable Darlene D. Heep, ALJ
Certificate of Service

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Art Larson :
 :
 v. : Docket No. C-2017-2615206
 :
 PECO Energy Company :

CERTIFICATE OF SERVICE

I, Ward L. Smith hereby certify that on June 11, 2018, I served a copy of *PECO Energy Company's Brief* upon all interested parties via email and U.S. first class mail to:

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Dated: June 11, 2018



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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Arthur Larson

v.

PECO Energy Company

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C-2017-2615206

Main Brief of PECO Energy Company

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Introduction

This case involves a complaint by Arthur Larson (“Mr. Larson” or the “Complainant”) regarding PECO Energy Company’s (“PECO’s”) plan to install an electric Advanced Metering Installation (“AMI”) meter at Mr. Larson’s residence. Mr. Larson claims that PECO’s AMI meters are a defective product that will cause a fire at his residence, and that installation of an AMI meter would thus be unsafe utility service in violation of 66 Pa. C.S. §1501.¹

At the hearing, Mr. Larson testified that the basis for his claim that PECO’s AMI meters are a defective product that will cause fires is that he believes that the AMI meter that will be installed at his home – an Aclara I210+C -- is the same AMI meter technology used some years ago under the “Sensus” brand name, with no design or other changes, and that PECO is simply “rebranding” the old AMI meters by giving them a new name. He also expressed concern that the software and thermocouples that measure heat in the AMI meter might not be properly designed, but stated that he could not evaluate that concern unless he reviewed internal design of

¹ See July 20, 2017 Complaint, ¶ 5. The approximately 60-page Formal Complaint also claims that PECO’s installation of AMI meters involved public corruption, “Pay to Play” activities, kickbacks and payoffs, and complained about a reconnection fee, but at hearing no testimony or evidence was presented on any of those claims. An attachment to the Complaint also mentions in passing that Mr. Larson had health concerns regarding AMI meters, but that claim was not pursued at hearing and no evidence was adduced in support of it. See February 20, 2018 Transcript, p. 4.

ALJ Heep: It is my understanding that this hearing is not going to involve any allegations of adverse health effects; is that correct?

Mr. Jenkins (counsel for Mr. Larson): That is correct, Your Honor.

At the February 20, 2018 hearing, Mr. Larson also stated that he had not received safety information from PECO. At hearing, it was not clear whether this testimony was part and parcel of Mr. Larson’s safety concern, or whether he intended to separately argue that PECO violated the law because it had failed to fully communicate with him. However, in Mr. Larson’s Main Brief, which he filed on June 6, 2018, he did not brief the communication argument.

the AMI meters, which he stated that he has not done. For its part, PECO presented testimony from Mr. Glenn Pritchard, who is an expert in the design and operation of AMI meters and systems. Mr. Pritchard testified that the Aclara I210C+ meter is not a rebranded meter, and it has been tested and is safe for use on the PECO system and for PECO's customers.

Background and Procedural History

On July 20, 2017, Mr. Larson filed a formal Complaint with the Pennsylvania Public Utility Commission.

On or about August 9, 2017, PECO filed its Answer and New Matter.

On August 28, 2017, a Prehearing Order was issued, stating that the hearing would take place on January 10, 2018 and setting interim dates of November 14, 2017 for the exchange of witness reports and January 3, 2018 for the exchange of hearing exhibits.

On or about August 30, 2018, Mr. Arthur L. Jenkins, Jr., contacted PECO on behalf of Mr. Larson and informally requested a continuance of the hearing date until February 20, 2018. PECO stated that it did not object to the requested continuance. Mr. Jenkins then informally requested the continuance from ALJ Heep.

On September 1, 2017, Mr. Arthur L. Jenkins, Jr., entered an appearance on behalf of Complainant. On that same date, Mr. Larson filed a Reply to New Matter.

On September 6, 2017, a Hearing Cancellation/Reschedule Notice was issued, setting a new hearing date of February 20, 2018.

On October 16, 2017, PECO served its Set I discovery.

On October 25, 2017, Mr. Larson objected to PECO's Set I discovery.

On November 3, 2017, the parties reached informal resolution with respect to PECO's Set I discovery.

On November 7, 2017, Mr. Larson served his Set I discovery on PECO.

On November 13, 2017, Mr. Larson served his witness report, designated as his "pre-hearing order compliance."

On November 14, 2017, PECO served its witness reports. On that same day, PECO objected to Mr. Larson's discovery, Set I, Q. 4.

On November 15, 2017, PECO served its answers to the remainder of Mr. Larson's Set I discovery.

On November 21, 2017, Mr. Larson filed a Motion to Compel with respect to his discovery, Set I, Q4.

On December 4, 2017, the Commission's Office of Secretary issued a Secretarial Letter returning Mr. Larson's Motion to Compel for an original signature.

On December 11, 2017, Mr. Larson re-filed his Motion to Compel.

On December 14, 2017, PECO filed its answer to the Motion to Compel.

On December 19, 2017, ALJ Heep issued an Order Granting in Part and Denying in Part Mr. Larson's Motion to Compel.

On January 3, 2018, PECO served its hearing exhibits. Mr. Larson did not serve any hearing exhibits.

On January 4, PECO served its answer to Mr. Larson's discovery, Set I, Q4.

On January 23, 2018, PECO served its Set II discovery.

On February 2, 2018, Mr. Larson served omnibus objections to PECO's Set II discovery.

On February 5, 2018, PECO filed a Motion to Compel answers to its Set II discovery.

On February 7, 2018, Mr. Larson filed his Answer to PECO's Motion to Compel.

On February 9, 2018, ALJ Heep issued an Order granting PECO's Motion to Compel.

On February 14, 2018, Mr. Larson served his answers to PECO's Set II discovery.

On February 15, 2018, PECO again served its hearing exhibits.

On February 15, 2018, Mr. Larson served a single hearing exhibit.

On February 20, 2018, the evidentiary hearing was held as scheduled. Mr. Larson appeared and was represented by his attorney, Mr. Jenkins. Mr. Larson appeared as a witness and sponsored one exhibit, his *curriculum vitae*. PECO was represented by Mr. Ward Smith and Ms. Shawane Lee. PECO presented the testimony of Mr. Bryan Uber and Mr. Glenn Pritchard, and sponsored 11 exhibits (two cross-examination exhibits; seven exhibits to which Mr. Uber testified; and two exhibits to which Mr. Pritchard testified). The transcript is 129 pages.

On May 9, 2018, a Briefing Order was issued, setting June 11, 2018 for Main Briefs and July 11, 2018 for Reply Briefs.

On June 6, 2018, Mr. Larson filed his Main Brief.²

On June 11, 2018, PECO filed this Main Brief.

² Because Mr. Larson filed his Main Brief approximately five days prior to the filing deadline, PECO had the opportunity to review his arguments and, when possible and in the hopes of limiting or avoiding a Reply Brief, PECO has responded to his arguments in this Main Brief.

Proposed Findings of Fact

1. Mr. Larson is currently a PECO electric utility service customer and natural gas utility service customer receiving service at 176 Hart Avenue, Doylestown, PA, 18901. Tr. 8-9, Exh. BU-4.
2. The Respondent is PECO Energy Company. Tr. 6, Ex. BU-4.
3. Mr. Larson lives in a single-family home, with two stories and a two car garage. Tr. 8.
4. Mr. Larson is a Systems Engineer IT Consultant who performs consulting work through a small business owned by him. Tr. 8.
5. Mr. Larson was offered and recognized as an expert “in the field of microcircuits and the software which controls them.” Tr. 24, 33.
6. Mr. Larson stated that he has “a reasonable doubt on the safety [of PECO’s AMI meters]based on the information that they gave me that it is a Smart Meter which is a spin-off from General Electric which was acquired through Sensus, so this looks like it is a rebranding of the Sensus Smart Meter and my concern is the safety of th[ese] devices.” Tr. 35, 41-42.
7. Mr. Larson also stated that he is concerned that, while the PECO AMI meters have software and thermocouples to measure the level of heat in the AMI meters, he does not know whether that software and thermocouples measure heat at both the front and the back of the meter. His concern is that heat is only measured at the front of the meter. Tr. 36-37.
8. In Mr. Larson’s opinion, the only way to determine whether the software and thermocouples in PECO’s AMI meters safely measure heat levels would be to “request the PECO internal quality control reports at the Berwyn Meter Testing Facility to be provided to the PUC to be properly evaluated. That’s never been allowed.” Tr. 37.

9. Mr. Larson's opinion that the prior generation of PECO's AMI meters posed a fire hazard is based upon documents that he read prior to filing his complaint, but Mr. Larson was unable to locate any such documentation during the discovery phase of this hearing, and no such documentation was made available by him in response to discovery requests or at the hearing. Tr. 37-40.

10. Mr. Larson could not evaluate whether the design of the AMI meter is unsafe without reviewing information regarding the internal design of the AMI meter, and he has not reviewed such information. Tr. 42.

11. Bryan Uber is a senior supervisor in PECO's Customer Field Operations Department. As part of his duties, he works on PECO's AMI installation project and is familiar with PECO's notification process. Tr. 46-47.

12. Mr. Uber testified regarding communications between PECO and Mr. Larson with respect to AMI installation. Tr. 46-82; Ex. BU-3, 4, 5, 7, 8 and 9.³

13. Glenn Pritchard is the manager of PECO's Advanced Grid Operations & Technology Group. Tr. 83; Exh. GP-1. For nearly 10 years, he has been responsible for researching and identifying smart grid products and advanced metering infrastructure systems and the associated hardware, including advanced meters. Tr. 84. He has worked with the actual meters, reviewing the meters to insure that they function as intended and that they adhere to safety standards. Tr. 84. Mr. Pritchard was offered and accepted, without objection, as an expert in "the design, operations and technology of advanced meter installations." Tr. 85.

³ Mr. Uber's testimony was offered in response to the potential claim that PECO had not offered, in its communications with Mr. Larson, to speak to him about his safety concerns. Since Mr. Larson did not make that argument in his Main Brief, PECO will not provide detail on Mr. Uber's testimony in its Brief. Similarly, at hearing Mr. Larson's counsel objected to Mr. Uber's testimony on the grounds that it violated the Parol Evidence Rule, Tr. 56, 57, 59, 61; the Best Evidence Rule, Tr. 55, 58; the Business Records Act, Tr. 55, 70; and that the business records must be shown to have an "input *ante litem motam*." Tr. 70. None of those objections were argued or preserved in Mr. Larson's Main Brief. Your Honor directed briefing on these issues, Tr. 72, but since Mr. Larson did not brief or preserve the objections, PECO does not believe that it is necessary to brief its response to the objections.

14. Mr. Pritchard testified that the Aclara I210+C is not a “rebranding” of the Sensus meter. They are made by different manufacturers and are uniquely designed and manufactured. Tr. 86-87.

15. Mr. Larson currently has a solid-state (non-analog) AMR meter, manufactured by Schlumberger, at his residence. Tr. 88-89.

16. PECO began to install AMI meters in 2009 in response to Act 129. Tr. 89.

17. Electric meters, including PECO’s AMI meters, must meet a series of standards set by the American National Standards Institute, which is standard-setting organization that is “accepted across the industry” and those standards have been “universally adopted.” Tr. 90. The ANSI standards address fire and safety issues by requiring that the materials used in the meters must be resistant to fire and meet other criteria. Tr. 90-91. PECO’s AMR meters and PECO’s AMI meters comply with all applicable ANSI standards. Tr. 91.

18. Thermocouples are a functionality added to AMI meters that did not exist in prior meters, such as the AMR meters. Tr. 91.

19. At the time that PECO installed its AMR meters, Underwriters’ Laboratory had not yet established a standard for meters. Tr. 92. Consequently, none of PECO’s AMR meters, including the AMR meter that is currently installed at the Larson residence, have been tested for compliance with UL standards. Tr. 92-93.

20. UL created its meter standard, known as UL 2735, in or about 2013. Tr. 93. UL 2735 includes specifications for flame retardance and other named issues. Tr. 93-94.

21. PECO Landis + Gyr AMI meters, which have been broadly installed in its service territory, have been tested for compliance with UL 2735. The L+G meters do not carry a UL stamp because they were manufactured prior to the creation of UL 2735 and, under UL rules, a device cannot carry a UL sticker if it was manufactured prior to the creation of a standard, even if the device is later shown to comply with the standard. But the L+G meter nonetheless meets UL 2735. Tr. 94-95.

22. The Aclara I210+C meter that PECO plans to install at the Larson residence was manufactured after the creation of UL 2735. It has been tested for compliance with UL 2735 and has a UL sticker. Tr. 95.

23. A “hot socket” is an industry term that refers to an overheating situation that can occur when the customer-owned socket into which the utility meter is seated malfunctions. Such overheating of the customer-owned socket can lead to catastrophic events. Tr. 95-96.

24. If a hot socket develops and the utility has installed an analog meter or an AMR meter, the overheating event will continue to develop with no mechanism or method to detect the overheating. Tr. 96-97.

25. The current generation of PECO AMI meters, including both the L+G meters and the Aclara meter that PECO plans to install at the Larson residence, contain thermocouple sensors that sense the internal temperature of the meter itself. If a hot socket occurs on the customer equipment, an alarm is sent to the utility that such heating is occurring. The alarm threshold is set low enough that PECO can respond prior to any catastrophic event with a field crew that will investigate the source of the heating and immediately make the situation safe. Tr. 97-98, 120.

26. PECO has not seen any defects in the current generation of AMI meters that would cause them to overheat and catch on fire. Tr. 98.

27. The manufacturer’s specifications for the Aclara I210+C meter were provided as Ex. GP-2. Tr. 99. Mr. Pritchard reviewed the manufacturer’s specifications against the Aclara meters being used by PECO, and the manufacturers’ specifications accurately report the functionality and which standards PECO’s meters meet, including all relevant ANSI standards. Tr. 99-100.

28. PECO offers customers, including Mr. Larson, the accommodation of allowing the customer to move the meter board/meter socket to a new location that the customer prefers. Tr. 100-103.

29. The Aclara meter is manufactured in New England. Tr. 106.

30. Mr. Pritchard was not requested to bring copies of quality control reports on the AMI meters to the hearing, and did not bring any. Tr. 107-08, 112.

31. In forming his expert opinion regarding the safety of an AMI meter, Mr. Pritchard reviews the relevant standards and the manufacturers' specifications. He then tests the meter through a battery of PECO-specific tests and researches its track record. He has done those tasks for the Aclara I210+C meter, and he has done sufficient review to reach an expert conclusion as to whether the Aclara I 210+C meter is safe for installation on the PECO system – and he has accepted the Alcara I210+C meter as a safe meter for the PECO system and for its customers. Tr. 111.

32. Mr. Pritchard knows that the Aclara I210+C meter meets UL 2735 because he has read the report stating that it meets UL standards and because the meter carries the UL sticker. Tr. 111-13.

33. Mr. Pritchard knows that the Aclara I210+C meter meets ANSI standards because the meter is so stamped and because the manufacturers' specifications so state. Tr. 113-14.

34. In Mr. Pritchard's opinion, UL is an independent evaluation facility. Tr. 118-19.

35. Responses to hot socket alarms are handled by PECO's Distribution System Operations (DSO). Tr. 122. Mr. Pritchard does not work for DSO but, in his position, Mr. Pritchard would be informed of hot socket alarms if they occurred, and has not received any such notification for the Aclara meter. Tr. 123-24.

Summary of Argument

As the Complainant, Mr. Larson has the burden of proving, by a preponderance of evidence, his claim that PECO's electric AMI meter is a defective product that will cause a fire hazard at his residence. He did not meet that burden. His testimony established only that he believes that the Aclara I210+C meter is a "rebranding" of the 2012-vintage Sensus meter and that, while he has not reviewed design documents for the meters, he questions whether the thermocouple sensors in the meters can detect overheating at the back of the meter.

PECO, however, presented expert testimony that demonstrates that:

- The Aclara I210+C meter is not a rebranded meter, it is a different meter made by a different manufacturer.
- The Aclara I210+C meter has been tested for safety compliance, including fire safety, with standards of the American National Standards Institute ("ANSI") and Underwriters' Laboratory ("UL");
- PECO's AMI meters have not caused overheating; and
- The thermocouple heat sensors are a new functionality added to the AMI meters that does not exist in AMR meters, and which allows PECO to determine if a customer's wiring and meter socket are overheating and take steps to avoid fires in a way that it could not do using older technology such as the AMR meters.

Given the above, the installation and use of electric AMI meters constitutes "reasonable utility service" for purposes of 66 Pa. C.S. §1501.

Argument

I. Mr. Larson did not meet his burden of proving, by a preponderance of the evidence, that PECO's AMI meter is a defective product that will cause fires

A. Mr. Larson has the burden of proving that PECO's AMI meter is a defective product that will cause fires

It is axiomatic in all Commission formal complaint proceedings that the Complainant has the burden of proof. *Samuel J. Lansberry, Inc. v. Pa. PUC*, 578 A.2d 600 (Pa. Cmwlth. 1990), *alloc. denied*, 529 Pa. 654, 602 A.2d 863 (1992).

In his Main Brief (p. 3), Mr. Larson recognizes that *Lansberry* is controlling precedent. However, he argues that *Lansberry* does not require proof by a preponderance of the evidence, but instead requires “substantial evidence,” which he states may be less than a preponderance.⁴

It's as simple as this: Mr. Larson is making the same argument that *Lansberry* made *and lost* before the Commonwealth Court. *Lansberry* also claimed that the Commission should use a “substantial evidence” standard rather than a “preponderance of the evidence” standard. The *Lansberry* Court rejected the argument made then by *Lansberry* then, and being made now by Mr. Larson, stating (pp. 601-02) that:

Lansberry first argues that the PUC erred by requiring *Lansberry* to prove its case by a preponderance of the evidence rather than by substantial evidence . . . The 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. Thus, *Lansberry's* argument [that the Commission should use a lesser “substantial evidence” standard] is without merit.

⁴ In his Proposed Conclusion of Law 4, Main Brief, p. 9, Mr. Larson claims, without any explanation, that PECO has the burden of proof in this proceeding. That incorrect statement should not be adopted by the Commission.

In sum, Mr. Larson has the burden of proving his case by a preponderance of the evidence.

B. Mr. Larson’s testimony did not provide a preponderance of evidence, or even substantial evidence, in support of his claim

Ms. Larson was offered and recognized as an expert “in the field of microcircuits and the software which controls them.” Tr. 24, 33. Although he was given substantial opportunity on *voir dire* to explain how this expertise and his experience relates to AMI meters, he was not able to describe any robust connection between his expertise and AMI meters. Indeed, the only connection he was able to draw to hardware of any kind was that, in creating software, he had to have an understanding of how electronic devices could fail. Tr. 32. None of his professional experience was directly with utility meters. Tr. 8-33. PECO therefore respectfully submits that any expert opinions rendered by Mr. Larson should not be given substantial weight and should not be considered to be substantial evidence.

Mr. Larson’s overarching opinion is that he has “a reasonable doubt on the safety [of PECO’s AMI meters] based on the information that they gave me that it is a Smart Meter which is a spin-off from General Electric which was acquired through Sensus, so this looks like it is a rebranding of the Sensus Smart Meter and my concern is the safety of th[ese] devices.” Tr. 35, 41-42. Mr. Larson stated this bald opinion, but provided no rationale or underlying documentation for how he reached this opinion regarding rebranding. (As Mr. Pritchard later testified, and as further discussed later in the Brief on the section on Mr. Pritchard’s testimony, no such rebranding occurred.)

Moreover, PECO notes that Mr. Larson’s concern about the older Sensus meters was based on his review of old newspaper articles that he was unable to locate, review, or provide

prior to or at hearing. Tr. 37-40. He therefore did not demonstrate through substantial evidence that even the older meters were unsafe.

Mr. Larson also testified that he has questions regarding how the internal temperature sensors (thermocouples) operate in the AMI meters, and whether they measure the temperature at both the front and the back of the meter. Tr. 37-40. He did not testify that such a situation, if it exists, is a design flaw or that he knows that such a design flaw exists. Indeed, he testified that the only ways he could determine whether such a design flaw exists would be to review the “internal quality control reports at the Berwyn Meter Testing Facility,” Tr. 37, or other documents with information regarding the internal design of the meter, Tr. 42 – and that he has not reviewed any such documents. Tr. 37, 42. PECO respectfully submits that Mr. Larson thus has no information on which to base an expert opinion regarding the design or safety of PECO’s AMI meters. Consequently, his opinion regarding what he thinks about design flaws should not be deemed to be substantial evidence, and certainly should not be viewed as providing a preponderance of evidence compared to PECO’s evidence.

II. PECO presented substantial, persuasive expert testimony that demonstrates that its AMI meters are not a defective product and will not cause fires

As noted above, Mr. Larson has the burden of proof. When the limited testimony of Mr. Larson is viewed in the context of the evidence adduced by PECO, it is absolutely clear that Mr. Larson failed to demonstrate, by a preponderance of the evidence, that PECO’s electric AMI meter is a defective product that will cause fires.

On this issue, PECO presented the testimony of Mr. Glenn Pritchard, who is a PECO engineer with expertise in the design, operations, and technology of advanced meter installations.

A. Glenn Pritchard is an expert in the design, operations and technology of advanced meter installations

Glenn Pritchard is the manager of PECO's Advanced Grid Operations & Technology Group. Tr. 83; Exh. GP-1. For nearly 10 years, he has been responsible for researching and identifying smart grid products and advanced metering infrastructure systems and the associated hardware, including advanced meters. Tr. 84. He has worked with the actual meters, reviewing the meters to insure that they function as intended and that they adhere to safety standards. Tr. 84. Mr. Pritchard was offered and accepted, without objection, as an expert in the design, operations, and technology of advanced meter installations. Tr. 85. PECO respectfully submits that Mr. Pritchard's expert opinions with respect to AMI meters should be given substantial weight, and certainly should be given more weight than Mr. Larson's testimony.

At hearing, Mr. Pritchard stated that he is an employee of PECO. Tr. 83. In Mr. Larson's Main Brief (pp. 4-5), Mr. Larson argues that Mr. Pritchard's testimony should not be believed because he is an employee of PECO and thus has an interest in the outcome of the case. In actuality, Mr. Pritchard's employment with PECO is one of the primary reasons that his testimony should be given substantial weight. It is because of his employment role that he has been integrally involved in the design, operations, and technology of advanced meter installations; it is through his employment with PECO that he has become familiar with the specific meters in question.⁵

⁵ Mr. Larson also suggests (Main Brief, p. 4), without citation or any explanation, that PECO had an obligation to sponsor testimony from an "independent expert witness." PECO does not accept the view that it is required to hire an independent expert witness – Mr. Pritchard is a recognized expert in the fields relevant to this case.

B. Mr. Pritchard provided substantial, persuasive evidence that PECO's AMI meters are not a defective product that will cause fires

Mr. Pritchard's overall expert opinion is that he has done sufficient research to reach an expert conclusion as to whether the Aclara meter is safe for installation on the PECO system – and he has accepted the Aclara meter as a safe meter for the PECO system and for its customers. Tr. 111.⁶

In support of this conclusion, Mr. Pritchard provided the following substantial testimony:

“Rebranding”: The Aclara I210+C is not a “rebranding” of the Sensus meter. They are made by different manufacturers and are uniquely designed and manufactured. Tr. 86-87.

Safety standards, ANSI: Electric meters, including PECO's AMI meters, must meet a series of standards set by the American National Standards Institute, which is a standard-setting organization that is “accepted across the industry” and whose standards have been “universally adopted.” Tr. 90. The ANSI standards address fire and safety issues by requiring that the materials used in the meters must be resistant to fire and meet other criteria. Tr. 90-91. PECO's AMR meters and PECO's AMI meters comply with all applicable ANSI standards. Tr. 91.

Safety standards, UL: The Aclara I210+C meter that PECO plans to install at the Larson residence was manufactured after the creation of UL 2735. It has been tested for compliance with UL 2735 and has a UL sticker. Tr. 95. In Mr. Pritchard's opinion, UL is an independent evaluation facility. Tr. 118-19.

⁶ In his Main Brief (p. 5), Mr. Larson alleges, without citation, that Mr. Pritchard “failed to testify that the . . . Smart Meter . . . proposed to be installed on the Larson home was safe.” As noted in text, Mr. Pritchard gave precisely that testimony at page 111 of the Transcript.

Overheating of PECO AMI meters: PECO has not seen any defects in the current generation of AMI meters that would cause them to overheat and catch on fire. Tr. 98.⁷

Heating sensors/thermocouples: A “hot socket” is an industry term that refers to an overheating situation that can occur when there is a malfunction of the customer-owned socket (into which the utility meter is seated). Such overheating of the customer-owned socket can lead to catastrophic events. Tr. 95-96. If a hot socket develops and the utility has installed an analog meter or an AMR meter, the overheating event will continue to develop with no mechanism or method to detect the overheating. Tr. 96-97. Mr. Larson currently has a solid-state (non-analog) AMR meter, manufactured by Schlumberger, at his residence. Tr. 88-89. His current meter thus does not have the ability to detect a hot socket.

Thermocouples are a functionality added to AMI meters that did not exist in prior meters, such as the AMR meters. Tr. 91. The current generation of PECO AMI meters, including both the L+G meters and the Aclara meter that PECO plans to install at the Larson residence, contain thermocouple sensors that sense the internal temperature of the meter itself. If a hot socket occurs on the customer equipment, an alarm is sent to the utility that such heating is occurring. The alarm threshold is set low enough that PECO can respond prior to any catastrophic event with a field crew that will investigate the source of the heating and immediately make the situation safe. Tr. 97-98, 120. Consequently, once PECO installs an AMI meter at the Larson residence, his meter will have the ability to detect a hot socket. PECO’s ability to detect overheating at the Larson residence will thus improve after the AMI meter is installed.

In his Main Brief, Mr. Larson offers two critiques of this testimony. First, he states (pp. 4-5) that Mr. Pritchard did not present a “quality control report” at hearing, and that his testimony should thus be rejected. Mr. Larson does not provide any citation or rationale for the

⁷ In his Main Brief (p. 4), Mr. Larson answers this testimony by stating that he “has chosen not to be the PECO guinea pig.” This argument ignores the facts that Mr. Larson did not provide substantial evidence that PECO’s meters will cause fires, and that Mr. Pritchard provided substantial testimony that they were designed, manufactured, and tested so that they will not cause fires. There is no guinea-piggery involved.

view that Mr. Pritchard was required to provide a copy of a “quality control report” as part of his testimony.

For his part, Mr. Pritchard testified that he was not requested to bring copies of quality control reports on the AMI meters to the hearing, and thus did not bring any. Tr. 107-08, 112. However, in forming his expert opinion regarding the safety of an AMI meter, Mr. Pritchard reviewed the relevant standards and the manufacturers’ specifications. He then tested the meters through a battery of PECO-specific tests and researched the track record of the meters. He stated that he has done those tasks for the Aclara I210+C meter, and he has done sufficient review to reach an expert conclusion as to whether the Aclara I210+C meter is safe for installation on the PECO system – and he has accepted the Aclara I210+C meter as a safe meter for the PECO system and for its customers. Tr. 111.

Second, Mr. Larson claimed that, because Mr. Pritchard is not an employee of PECO’s Distribution System Operations, he does not know whether the Aclara I210+C meter has reported any hot sockets. Mr. Pritchard testified, however, that while he does not work for DSO, in his position in the Company Mr. Pritchard would be informed of hot socket alarms if they occurred, and has not received any such notification for the Aclara I210+C meter. Tr. 123-24. Moreover, even if a hot socket notification was received via an Aclara I210+C meter, that would not suggest that the meter itself is overheating, because the thermocouple measures heat increases from the customer meter socket. Moreover, if and when an overheating alarm is generated by an Aclara I210+C meter, that will simply be a demonstration that the new thermocouple technology is working to allow PECO to deploy field crews to remediate the issue *before* any catastrophic results occur. See Tr. 97-98, 120.

In sum, Mr. Pritchard presented substantial evidence, which persuasively outweighs the evidence presented by Mr. Larson, and which demonstrates that the PECO AMI meters are not a defective product that will cause a fire.

III. Your Honor Properly Did Not Order the Sequestration of PECO's Witnesses

At the February 20, 2018 evidentiary hearing, counsel for Mr. Larson requested that PECO's witnesses be sequestered during Mr. Larson's testimony. Your Honor denied this request. Tr. at 4-5. In his June 6, 2018 Main Brief, p. 4, Mr. Larson reiterated his claim that the witnesses should have been sequestered, stating that:

All of PECO's witnesses called at trial were permitted to sit through and witness the entire case of the complainant. The Administrative Law Judge denied the request for sequestration without advancing a reason. (T-5). Clearly, the defense were well aware of the case of the complaint.

The sequestration of witnesses is addressed in Rule 615 of the Pennsylvania Rule of Evidence 615, 225 Pa. Code Rule 615, which states:

Rule 615. Sequestering Witnesses.

At a party's request the court may order witnesses sequestered so that they cannot learn of other witnesses' testimony. Or the court may do so on its own. But this rule does not authorize sequestering:

- (a) a party who is a natural person;
- (b) an officer or employee of a party that is not a natural person (including the Commonwealth) after being designated as the party's representative by its attorney;
- (c) a person whose presence a party shows to be essential to presenting the party's claim or defense; or
- (d) a person authorized by statute or rule to be present.

First, whether a judge grants a sequestration request is discretionary, not mandatory. The rule states that the court “may” order the sequestration of witnesses, not that it “must” do so. *See* Comment to Rule 615, 43 Pa. Bull. 620 (February 2, 2013) (“[T]he rule is discretionary not mandatory.”) A judge’s decision to allow witnesses to remain in the hearing room after a sequestration request will not be reversed “absent a clear abuse of discretion.” *Commonwealth v Albrecht*, 511 A. 2d 764,772; 510 Pa.603, 619 (1986). Mr. Larson provided no argument in support of the view that the ALJ abused her discretion; he simply states that she did not grant his request.

Second, a sequestration order *may not* be issued and applied to “an officer or employee of a party that is not a natural person (including the Commonwealth) after being designated as the party’s representative by its attorney.” Mr. Uber testified that he is an employee of PECO, Tr. at 45, and was designated by counsel as PECO’s custodian of business records. Tr. at 66. Mr. Pritchard testified that he is an employee of PECO, Tr. at 83, and was designated as an expert witness on behalf of PECO. Tr. at 85. They were both PECO’s employees, and were designated by counsel as being PECO’s representatives in this proceeding. By rule, no sequestration order may apply to them.

Third, under Rule 615, the fact that Mr. Pritchard was offered and accepted as an expert made it well within the ALJ’s discretion to allow Mr. Pritchard to hear Mr. Larson’s testimony. Simply, expert witnesses are allowed to base their opinion testimony on evidence heard in the courtroom. As the Pennsylvania Supreme Court stated in *Albrecht*, 511 A. 2d 764,772; 510 Pa.603, 619:

Appellant correctly cites the case of *Commonwealth v. Fant*, 480 Pa. 586, 391 A.2d 1040 (1978), *cert. denied*, 441 U.S. 951, 99 S.Ct. 2180, 60 L.Ed.2d 1056 (1979), for the

proposition that a witness should be prevented from shaping his testimony from evidence presented by other witnesses. However, *an expert witness may state his opinion based upon evidence he has heard presented in the courtroom. Commonwealth v. Daniels*, 480 Pa. 340, 390 A.2d 172 (1978). . . . [This] renders Appellant's argument[that failure to sequester an expert witness was an abuse of discretion] meritless.

Fourth, a sequestration order *may not* be issued to sequester “a person whose presence a party shows to be essential to presenting the party’s claim or defense.” At hearing, PECO’s counsel objected to the sequestration request by clearly stating that the ability of the witnesses to hear Mr. Larson’s testimony was essential to PECO’s defense: “These witnesses are going to be responding to the testimony of Mr. Larson. . . . if the sequestration also extends to having them out of the room when Mr. Larson is testifying, they are responding to his testimony. They are the responders.” Again, this means that no sequestration order would apply to these witnesses.

Finally, Mr. Larson did not even attempt to demonstrate that the refusal to sequester witnesses caused any damage to the proper presentation of evidence in this case, which itself is fatal to his sequestration argument. In *Albrecht*, the Supreme Court rejected the sequestration claim in part because “Appellant fails to show specifically what damage occurred by this witness not being sequestered. He argues merely in boilerplate fashion” 511 A. 2d 764,774; 510 Pa.603, 620. Mr. Larson also made this argument “in boilerplate fashion,” and it should likewise be rejected.

Proposed Conclusions of Law

1. The Commission has jurisdiction over the parties and the subject matter of this proceeding. 66 Pa.C.S. § 701.

2. The Complainant must establish his case by a preponderance of the evidence. *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm'n*, 578 A.2d 600 (Pa. Cmwlth. 1990), alloc. den., 602 A.2d 863 (Pa. 1992).

3. The complainant has not met his burden of proof of establishing an offense in violation of the Public Utility Code, the Commission's regulations or an outstanding order of the Commission. 66 Pa.C.S. § 701.

4. PECO did not provide unsafe or unreasonable service in violation of 66 Pa.C.S. § 1501.

Conclusion and Proposed Ordering Paragraphs

PECO respectfully submits that, on the record evidence in this proceeding and for the reasons set forth above, the Commission should find that Mr. Larson did not meet his burden of proof in this proceeding, and that use of an electric AMI meter at the Larson residence does not violate 66 Pa. C.S. § 1501. PECO therefore respectfully requests that the Commission issue an Order in this proceeding that states:

1. That the Complaint is dismissed; and
2. That PECO may install an electric AMI meter at the Larson residence.

Respectfully submitted,



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June 11, 2018