

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

James Quigley and Teresa Mendez-Quigley	:	
	:	
	:	
v.	:	C-2017-2617558
	:	
PECO Energy Company	:	

**INITIAL DECISION**

Before  
Darlene Davis Heep  
Administrative Law Judge

**INTRODUCTION**

The Complainants have not established by a preponderance of the evidence that installation of an AMI<sup>1</sup> meter at their home would be unsafe or unreasonable in violation of 66 Pa. C.S. § 1501 or that PECO has violated the Public Utility Code, Commission Regulations or a Commission Order. The Complaint will be dismissed.

**HISTORY OF THE PROCEEDING**

On August 1, 2017, James Quigley (Mr. Quigley) and Teresa Mendez-Quigley (Mrs. Mendez-Quigley) (the Complainants or Quigleys) filed a Complaint with the Pennsylvania Public Utility Commission (Commission) against PECO Energy Company (PECO or Company). The Quigleys: 1) would like PECO to stop threatening to shut off their service and sending harassing shut off notices, 2) want the Commission to allow a customer to "opt-out" of AMI meter installation and would like PECO to install an analog meter at their residence, and 3)

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<sup>1</sup> AMI is an acronym for "advanced metering infrastructure."

contend that electromagnetic fields (EMF) and radio frequency fields (RF),<sup>2</sup> from PECO AMI meters will negatively affect the health of Mrs. Mendez-Quigley and therefore it would be unreasonable of PECO to install an AMI meter at their residence.

PECO filed an Answer on August 11, 2017. In that Answer, PECO denied all material allegations of fact in the Complaint. PECO also stated that the Company was required to install AMI meters in accordance with Act 129, that the Company had the right to terminate service when a customer refuses to allow the Company access to its meters, that the Complainant refused to have a meter installed and that a ten-day termination notice was sent. PECO requested that the matter be dismissed.

On August 20, 2017, the Complainants filed a Response to the Answer, requesting a hearing.

An Initial Hearing Notice was issued on September 1, 2017, setting the hearing for April 17-18, 2018. A prehearing order was issued on September 7, 2017, setting discovery and other deadlines.

The hearing was held as scheduled. The Complainants represented themselves and presented no witnesses.

PECO was represented by Ward L. Smith, Esquire, Shawane Lee, Esquire, and Thomas Carl Watson, Esquire. PECO presented the following witnesses: Mr. Bryan Uber, Mr. Glenn Pritchard, Christopher Davis, Ph.D., and Mark Israel, M.D.

On May 30, 2018, a briefing order was issued, requiring Main Briefs to be filed by July 10, 2018 and Reply Briefs by August 7, 2018.

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<sup>2</sup> EMF and RF were used interchangeably throughout these proceedings and therefore in this decision, "RF" will be used to reference such emissions.

On June 12, 2018, the Complainants requested an extension of time to file briefs. PECO did not object and the parties were given until August 3, 2018, to file Main Briefs and until September 7, 2018, to file Reply Briefs.

On July 16, 2018, PECO filed a Motion to Admit Thomas Carl Watson, Esquire *Pro Hac Vice*. The Complainants filed objections to that motion on July 26, 2018. By order issued on August 17, 2018, the motion was granted. On August 27, 2018, the Complainants filed a Motion for Leave for Interlocutory Appeal of the *Pro Hac Vice* ruling. PECO filed its opposition to interlocutory review on September 9, 2018.

By Order entered on September 20, 2018, the Commission declined the interlocutory review and returned the matter to the Office of Administrative Law Judge.

This matter consists of a 413-page transcript and 63 Exhibits. The record closed on September 21, 2018, upon return of the matter to the Office of Administrative Law Judge.

#### FINDINGS OF FACT

1. The Complainants are James Quigley and Teresa Mendez-Quigley, who are PECO gas and electric customers in Erdenheim, Pennsylvania. (service address).
2. The Quigleys have resided at the service address since 1997.
3. The Respondent is PECO Energy Company.
4. PECO installed an automatic metering system (AMR system) in its territory beginning in 1999. (Tr. 217-218).
5. PECO deployed 1.7 million electric meters and 500,000 gas meters in the AMR system meter deployment. (Tr. 219).

6. The AMR meter currently at the Complainants' home was installed as part of this AMR system. (Tr. 219-220).

7. The meters in the AMR system were transmit only and would transmit usage information every five minutes to the AMR network. (Tr. 219; PECO GP-2).

8. The AMR meters transmitted 288 times per day at the power of one watt for 20 milliseconds, for a total transmission time of 5.76 seconds per day. (Tr. 220; PECO GP-3).

9. The PECO AMR electric meter is located on the back of the service address. (Tr. 60).

10. The PECO gas meter is located on the front of the Complainants' home. (Tr. 69).

11. Act 129 of 2008 (The Act or Act 129) directed electric distribution companies to file a smart meter technology procurement and installation plan with the Commission for approval.

12. The Act requires that any smart meter technology utilized have bidirectional or two-way communication technology, i.e., transmit usage information and receive commands. (66 Pa.C.S. § 2807(g); Tr. 221-223).

13. PECO is replacing its AMR meters on its system with smart meters. (PECO BU-1).

14. The AMR system was shut down in 2017. (Tr. 218).

15. The only PECO customers with AMR meters are those that have filed complaints with the Commission. (Tr. 213).

16. Bryan Uber is a PECO Senior Supervisor in Customer Field Operations. (Tr. 176).

17. In 2012, the Complainants contacted PECO and stated that they did not want a smart meter installed at their home due to health reasons. (PECO BU-1; Tr. 45-46).

18. On December 18, 2013, PECO sent the Complainants a letter notifying them that an AMI electric meter would be installed to replace their AMR meter. (PECO BU-1; Tr. 179).

19. On January 4, 2014, PECO representatives were unable to install the AMI electric meter at the service address. (PECO BU-1).

20. Between January 6, 2014 and January 14, 2016, PECO called the Complainants twice and sent a letter to the Complainants seeking to install an AMI electric meter. (PECO BU-1).

21. On March 17, 2014, PECO sent the Complainants another letter seeking to install an AMI meter. (PECO BU-1).

22. On March 24, 2014, PECO issued a ten-day shut off notice to the Complainants. (PECO BU-1).

23. On April 3, 2014, James Quigley called PECO and was given information regarding the transmissions of PECO AMR and AMI meters and referred to the PECO website for more information. (Tr. 180; PECO BU-1).

24. A letter dated April 4, 2014, from Allan L. Crimm, M.D., and sent to PECO stated that Teresa Mendez-Quigley should reduce involuntary electromagnetic exposures, including wireless transmissions. (Tr. 211).

25. On April 16, 2014, PECO received a certified letter from the Complainants stating that they did not want an AMI meter installed due to health and safety reasons. (PECO BU-1).

26. On April 17, 2014, GRID ONE, a company contracted by PECO to install meters, sent an email to PECO stating that the Complainants had refused installation of an AMI electric meter. (PECO BU-1; Tr. 188-190; 199).

27. Following receipt of the GRID ONE email, PECO marked the Quigley account as having refused an AMI meter and moved installment to the end of the deployment cycle. (Tr. 181; PECO BU-1).

28. In June of 2015, PECO sent the Complainants letters regarding the installation of a gas meter AMI module (gas module). (PECO BU-1; Tr. 181-182).

29. The Quigleys contacted PECO on July 27, 2015 and stated that they did not want a gas module installed and would provide a “doctor’s note.” (Tr. 201; PECO BU-1).

30. In January of 2016, PECO sent the Complainants another letter regarding installation of the AMI facilities. (PECO BU-1).

31. A gas module was installed at the service address in September of 2016. (Tr. 183).

32. PECO was not able to install the electric AMI meter and on October 4, 2016, PECO issued another ten-day shut off notice to the Complainants. (PECO BU 1).

33. A physician's note on behalf of the Quigleys was provided to PECO on October 24, 2016. (Tr. 209).

34. Glenn Pritchard is a professional engineer in the Commonwealth of Pennsylvania and is the PECO Manager of Advanced Grid Operations and Technology. (Tr. 215).

35. Glen Pritchard was recognized as an expert in the design, operation and technology of advanced meter installations. (Tr. 216).

36. The PECO Sensus AMI system has meters that transmit usage information every three or four hours and can also receive commands from the system Tower Gateway Base Station. (Tr. 221).

37. Commands that the AMI meters may receive include connecting or disconnecting power and verifying power status during storms. (Tr. 230-231).

38. On its AMI system, PECO uses meters manufactured by three different companies. (Tr. 222).

39. The meter most deployed and present on the PECO AMI system is the Landis+Gyr meter. (Tr. 222).

40. The Landis+Gyr meter has two functions – to measure the electric usage that is transmitted back to PECO via the Sensus Flex Net System every three or four hours, or six to eight times a day; and communicate price and consumption information with smart devices in the home or service address through the Zigbee radio. (Tr. 222).

41. The second meter employed by PECO on its AMI system is the Aclara meter. (Tr. 223).

42. The Aclara meter does not have a Zigbee radio. (Tr. 223).

43. The third meter on the PECO AMI system is the Sensus Stratus meter. (Tr. 223).

44. The Sensus Stratus meter has a Zigbee radio that can be remotely activated or deactivated. (Tr. 223, PECO GP-4).

45. The FlexNet radio in the Landis+Gyr, Sensus Stratus and Aclara meters transmits six to eight times per day at two watts for 70 milliseconds, for a total of 0.42 to 0.56 seconds per day. (Tr. 223-224; PECO GP-5).

46. The Landis+Gyr and Sensus Stratus meters' Zigbee radio, if activated on the Sensus Stratus meter, sends out a message to seek smart devices every 30 seconds until it connects with a device, or 2,880 transmissions at 130.92 milliwatts for 0.7 milliseconds, for a total transmission time of 2.576 seconds per day. (Id.).

47. The Aclara meter would not have this additional transmission because it does not have a Zigbee radio.

48. PECO did not change the gas meters; an AMI communications module was added to the meters. (Tr. 227).

49. The gas module transmits consumption information to PECO once every 240 minutes, or six times a day, for 0.42 seconds per day. (Tr. 225; GP-5).

50. The AMI electric meters are delivered to PECO set to transmit every 90 minutes, but PECO tunes the meters to transmit less often. (Tr. 225-226).

51. Over two-thirds of PECO's meters are tuned down to transmit every three to four hours per day; the exceptions would be where there is some obstruction that prevents communications. (Tr. 226).

52. PECO does not have a mesh AMI system like some systems in California and other places. (Tr. 228).

53. In a mesh system, the meters hand off data to another meter until it reaches a collector point. (Tr. 229).

54. In some mesh systems, the meters communicate tens of thousands of times a day. (Tr. 229).

55. The only meters in the PECO system that may transmit to another meter are those that are located in basements or where there are other obstructions, which is less than 2 percent of the PECO AMI meters. (Tr. 230).

56. PECO installs its meters wherever the meter socket is located by the customer. (Tr. 233).

57. Christopher Davis, a Ph.D. physicist, is the Minta Martin Professor of Engineering and Professor of Electrical and Computer Engineering at the University of Maryland. (PECO CD-1).

58. Dr. Davis was recognized as an expert in physics, biophysics, chemistry, electrical engineering, electromagnetics, bioelectromagnetics, and dosimetry as well as radio frequency fields such as those associated with PECO electric meters and gas modules. (PECO CD-1; Tr. 334).

59. The Federal Communications Commission has set limits on the maximum amount of exposure to RFs. (Tr. 290).

60. RF exposure from the PECO FlexNet radio is 5.8 million times smaller than the FCC limit and the Zigbee radio exposure is 164 million times smaller than the FCC limit. (CD-5).

61. The RF exposure from a PECO Gas Module FlexNet radio is 7.8 million times smaller than the FCC limit. (CD-6).

62. Exposure from the gas module radio and the Sensus AMI electric meter combined is 3.3 million times smaller than the FCC limit. (CD-7).

63. Dr. Mark Israel, M.D. was recognized as an expert in medicine, medical research and radiofrequencies, and electromagnetic fields and health. (Tr. 342).

64. Mrs. Mendez-Quigley has an auto-immune disease, low Vitamin D and osteoporosis. (Tr. 16).

65. Teresa Mendez-Quigley is a counselor and social worker. (Tr. 64).

66. James Quigley has a master's degree in science from the University of Pennsylvania and his work history includes science, technical and medicine peer review publishing as well as work as an environmental health investigator. (Tr. 24).

67. Mrs. Mendez-Quigley has a personal flip cell phone that she uses to text about once a day but generally returns calls on a landline. (Tr. 65).

68. Mrs. Mendez-Quigley has a work cell phone on which she receives about 8 to 10 calls per day.

69. Mrs. Mendez-Quigley turns off both cell phones at night. (Tr. 68).

70. The Complainants do not have Wi-Fi. (Tr. 53).

71. There is Wi-Fi where Mrs. Mendez-Quigley works. (Tr. 70).

72. In her job, Mrs. Mendez-Quigley does not remain in the office for the full work day, only about 16 hours per week. (Tr. 70).

73. The PECO electric meter is located near the home office of Mrs. Mendez-Quigley, which she sometimes uses as a bedroom. (Tr. 60).

### DISCUSSION

Section 332(a) of the Public Utility Code (Code), 66 Pa.C.S. § 332(a), provides that the party seeking relief from the Commission has the burden of proof. James Quigley and Teresa Mendez-Quigley seek relief from the Commission and therefore have the burden of proof here.

“Burden of proof” means a duty to establish a fact by a preponderance of the evidence, or evidence more convincing, by even the smallest degree, than the evidence presented by the other party. *Se-Ling Hosiery v. Margulies*, 364 Pa. 54, 70 A.2d 854 (1950).

If the Complainants establish a *prima facie* case, the burden of going forward with the evidence shifts to the utility. If the utility does not rebut that evidence, the Complainants will prevail. If the utility rebuts the Complainants' evidence, the burden of going forward with the evidence shifts back to the Complainants, who must rebut the utility's evidence by a preponderance of the evidence. The burden of going forward with the evidence may shift from one party to another, but the burden of proof never shifts; it always remains on the Complainants. *Replogle v. Pennsylvania Electric Company*, 54 Pa. PUC 528 (1980), and *Waldron v. Philadelphia Electric Company*, 54 Pa. PUC 98 (1980).

If PECO submits evidence of “co-equal” weight to counter the Complainants' evidence, the Complainants have not satisfied the burden of proof unless additional evidence opposing PECO's evidence is presented. *Morrissey v. PA Dept. of Highways*, 424 Pa. 87, 225 A.2d 895 (1967), and *Burleson v. Pa. Pub. Util. Comm'n*, 66 Pa.Cmwlth. 282, 443 A.2d 1373 (1982), *aff'd*, 501 Pa. 443, 461 A.2d 1234 (1983).

This matter arises from attempts by PECO to install a smart meter at the residence of the Quigleys. Act 129 of 2008 directed electric distribution companies (EDCs) to file Smart Meter technology, procurement and installation plans with the Commission for approval. The Act provided:

(f) *Smart Meter technology and time of use rates.* –

(1) Within nine months after the effective date of this paragraph, electric distribution companies shall file a smart meter technology procurement and installation plan with the commission for approval. The plan shall describe the Smart Meter technologies the electric distribution company proposes to install in accordance with paragraph (2).

(2) Electric distribution companies shall furnish Smart Meter technology as follows:

- (i) Upon request from a customer that agrees to pay the cost of the smart meter at the time of the request.
- (ii) In new building construction.
- (iii) In accordance with a depreciation schedule not to exceed 15 years.

66 Pa.C.S. § 2807(f)(1)-(2). The Act requires that any smart meter technology utilized have bidirectional or two-way communication technology. 66 Pa.C.S. § 2807(g).

The Commission ordered EDCs with greater than 100,000 customers to adhere to the guidelines established for smart meter technology, procurement and installation on June 18, 2009. EDCs were required to file a Smart Meter technology, procurement and

installation plan.<sup>3</sup> The Commission approved the smart meter installation plan developed by PECO.<sup>4</sup> Under that plan, PECO is replacing AMR meters with AMI meters or “smart meters.”

The Commission has stated, that a customer should be heard on an allegation that equipment installed by PECO may be unsafe or its installation unreasonable. In *Paul v. PECO Energy Co.*, Docket No. C-2015-2475355 (Opinion and Order entered June 14, 2018) (*Paul v. PECO*) the Commission reiterated that, pursuant to Section 1501 of the Code, a public utility has a duty to maintain safe, adequate and reasonable service and facilities and to make repairs, changes, and improvements that are necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public, referencing 66 Pa.C.S. § 1501, which provides,

§ 1501. Character of service and facilities

Every public utility shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. Such service also shall be reasonably continuous and without unreasonable interruptions or delay. Such service and facilities shall be in conformity with the regulations and orders of the commission.

The statutory definition of “service” is to be broadly construed. *Country Place Waste Treatment Co., Inc. v. Pa. Pub. Util. Comm'n*, 654 A.2d 72 (Pa.Cmwlt. 1995).

Service, used in its broadest and most inclusive sense, includes any and all acts done, rendered, or performed, and any and all things furnished or supplied, and any and all facilities used, furnished, or supplied by public utilities, or contract carriers by motor vehicle, in the performance of their duties under this part to their patrons,

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<sup>3</sup> See *Smart Meter Procurement and Installation*, Docket No. M-2009-2092655 (Implementation Order entered June 24, 2009) (*Smart Meter Procurement and Installation Order*).

<sup>4</sup> See *Petition of PECO Energy Company for Approval of its Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2009-2123944 (Order entered August 15, 2013) (*Smart Meter Plan*).

employees, other public utilities, and the public, as well as the interchange of facilities between two or more of them.

66 Pa.C.S. § 102.

The Commission has also stated that in matters such as this “[t]he ALJ’s role . . . will be to determine based on the record in this particular case, whether there is sufficient evidence to support a finding that Complainant was adversely affected by the smart meter or whether [the utility’s] use of a smart meter will constitute unsafe or unreasonable service in violation of Section 1501 under the circumstances in this case.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064 at 23 (Order entered January 28, 2016) (citing *Woodbourne-Heaton*, 1992 Pa. PUC Lexis 160, at \*12-13). *Frompovich v. PECO Energy Co.*, Docket No. C 2015-2474602 at 10, (Opinion and Order entered May 3, 2018).

Decisions by the Commission must be supported by substantial evidence in the record. 2 Pa.C.S. § 704. “Substantial evidence” is an appellate standard of review and not a standard of evidence. *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm'n*, 578 A.2d 600, 602 (Pa.Cmwlth. 1990). Substantial evidence is such relevant evidence that a reasonable mind might accept as adequate to support a conclusion. *Consolidated Edison Company v. National Labor Relations Board*, 305 U.S. 197, 229, 59 S.Ct. 206, 217 (1938).

The Complainants: 1) would like PECO to stop threatening to shut off their service and sending harassing shut off notices, 2) want the Commission to allow a customer to "opt-out" of AMI meter installation and would like PECO to install an analog meter at their residence, and 3) contend that electromagnetic fields (EMF) and radio frequency fields (RF),<sup>5</sup> from PECO AMI meters will negatively affect the health of Mrs. Mendez-Quigley and therefore it would be unreasonable of PECO to install an AMI meter at their residence.

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<sup>5</sup> EMF and RF were used interchangeably throughout these proceedings and therefore in this decision, “RF” will be used to reference such emissions.

## Refusal of AMI meter and Shut off Notices

The Complainants object to PECO threatening to shut off their service and they would like PECO to stop sending harassing shut off notices. The Quigleys also contend that PECO "acted with disregard and disrespect" by installing the gas module. (Quigley Main Brief at 34; Tr. 195-196; 198; PECO BU-1). The Quigleys noted that they had informed PECO that they did not want an AMI meter in 2012 and yet the Company attempted to install an AMI electric meter in 2014. (Tr. 195-196; 198; PECO BU-1). The Complainants also sent PECO a letter dated April 4, 2014 from Allan L. Crimm, M.D. that stated that Teresa Quigley should reduce involuntary electromagnetic exposures including wireless transmissions. The Quigleys also called PECO and informed the Company that it did not want AMI equipment, including the gas module, installed at their home.

It is PECO's position that they seek to install the AMI electric meter and installed the gas module in order to comply with Act 129. (Tr. 192). Brian Uber, PECO Senior Supervisor in Customer Field Operations, testified that the Company needed to install the gas module and needs to install the AMI electric meter because the AMR network has been terminated. Because an AMI electric meter is not installed and sending usage data to PECO, the Complainants are receiving estimated bills. (Tr. 192-193). Mr. Uber acknowledged that the Quigleys had contacted PECO on July 27, 2015 and stated that they did not want a gas module installed. (Tr. 201; PECO BU-1).

PECO customer contact records show that PECO contractor GRID ONE attempted to install an electric meter but was unable to do so. (PECO BU-1). The AMI meter was refused by the Complainants. (Id.)

Mr. Uber also testified that the gas module was installed because the Complainants' gas meter is located in the front of the house and the Complainants were not required to permit access to it. The electric meter was not changed to an AMI meter because there was some obstruction, such as a fence. (Tr. 199). Mr. Uber also testified that it was PECO's position that there is no opt out clause, completion of AMI deployment is required, and

the Company would continue to try to install meters unless a Complaint had been filed. (Tr. 213).

Mr. Pritchard also testified on behalf of PECO. He also explained that installation of the AMI meters was driven by the fact that the AMR system has been shut down and those customers such as the Complainants that do not have AMI meters are getting estimated bills. He asserted that the PECO tariff requires actual meter readings for billing purposes and that by providing customers with estimated bills for more than six months, PECO is in violation of directives of the Commission. (Tr. 235, 255).

It is not disputed that the Complainants on several occasions contacted PECO and stated that they did not want the AMI electric meter or the gas module. PECO records show statements such as "Gas Refusal Do Not Field Until Cleared" and "AMI Refusal Do Not Field Until Cleared." (PECO BU-1 at 1, 3). It is also undisputed that PECO attempted to install an electric AMI meter and actually installed a gas module after they were contacted by the Complainants.

Nevertheless, by installing the gas module, PECO was seeking to comply with Commission Orders and its tariff, which is not a violation. The shut off notices sent to the Complainants and efforts by PECO to install an AMI electric meter were also not violations.

The Commission ordered EDCs with greater than 100,000 customers to implement a plan to install smart meters for their customers.<sup>6</sup> PECO was and is attempting to comply with this directive. Additionally, PECO's tariff gives the Company the authority to change its equipment and access to its equipment.

PECO Tariff Electric Section 6.4 provides that the Company owns and maintains the meters. Under Section 14.5 of the PECO electric tariff, the Company will select the type and make of the metering equipment to be used for meters supplied by the Company and may from time to time change or alter the equipment.

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<sup>6</sup> See *Smart Meter Procurement and Installation*, Docket No. M-2009-2092655, *supra*.

Additionally, Section 10.1 of PECO's tariff requires that PECO repair and maintain its own property installed on the premises of the customer, such as the meter. Section 10.5 of PECO's tariff states that PECO employees shall have access to the premises of the customer at all reasonable times for the purpose of reading meters, and for installing, testing, inspecting, repairing, removing or changing any or all equipment belonging to the Company.

The Complainants refused installation of the AMI equipment. Where access to the meter is refused, the Company may terminate on reasonable notice under PECO tariff Section 18.3. As the Commission stated in *Frompovich, supra.*, "It is well-settled that where a customer refuses a utility access to its meter, the utility may terminate service after required notice is provided." *citing* 52 Pa. Code § 56.81(3).

A public utility's Commission-approved tariff is *prima facie* reasonable, has the full force of law, and is binding on the utility and the customer. 66 Pa.C.S. § 316; *Kossmann v. Pa. Pub. Util. Comm'n*, 694 A.2d 1147 (Pa.Cmwlth. 1997); and *Stiteler v. Bell Telephone Co. of Pennsylvania*, 379 A.2d 339 (Pa.Cmwlth. 1977). The Complainants did not establish that the applicable PECO tariff provisions are unreasonable. There was no violation by PECO here and the Complainants cannot prevail.

#### Request for an Analog Meter, Opt-Out

The Complainants would like an analog meter and to opt out of installation of a smart meter at their residence. (Tr. 132). The Complainants also assert that Act 129 was never written to mandate smart meters. (Tr. 17). James Quigley testified that:

The implementation order of the PUC changed that to universal mandate and they used an accounting principle to justify that mandate. So, the Quigley's have an ethical and I would add law-abiding right to refuse the smart meter because we are choosing not to opt in as the law was written.

(Tr. 17). In support of this claim, the Complainants presented Exhibit C-1<sup>7</sup> and C-2, a copy of Act 129 and an excerpt from the October 8, 2008, Legislative Journal containing language that smart meters are not mandatory. (See Quigley's Main Brief at 14-16; Tr. 22-23; C-2). The Complainants also contend that the language of Act 129 is as follows:

. . .electric distribution companies shall furnish smart meter technology as follows; (i), upon request from a customer that agrees to pay the cost of the smart meter at the time of the request. (ii), In new building construction. (iii), In accordance with a depreciation schedule not to exceed 15 years,

and does not mandate smart meter installation. They contend that the Commission used an "accounting term," the depreciation schedule, to unlawfully mandate installation of smart meters in Pennsylvania. (Tr. 23). The Complainants state that given this, they have a right to refuse a smart meter because they are choosing not to opt in. (Tr. 26). The Complainants do not believe that the law has been honored as written and there is no basis in law for a universal mandate for smart meter installation. (Tr. 121).

First, there is no basis upon which to order PECO to install an analog meter at the service address. PECO has chosen meters to comply with Commission Orders regarding AMI technology. As previously noted, the Company owns and maintains the meters, selects the type and make of the metering equipment to be used for meters supplied by the Company and may from time to time change or alter the equipment. See PECO Electric Tariff Sections 6.4, 14.5. The Company is operating an AMI system at this time.

Second, as Mr. Uber and Mr. Pritchard testified, service addresses not on the AMI system are receiving estimated bills. (Tr. 192-193, 235). 52 Pa.Code § 56.12 provides that a company shall render bills based on actual readings except for very particular exceptions such as personnel not available or extreme weather conditions or emergencies. *Id.* The Complainants presented no evidence that they fall into any of the exceptions.

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<sup>7</sup> "C" exhibits, C-1, etc. are exhibits introduced by the Complainants.

Third, while a plain reading of Act 129 may suggest an opt in, the Commission has addressed this issue to the contrary. In 2013, the Commission concluded that there is no provision in the Code or the Commission's Regulations or Orders that allows a PECO customer to "opt out" of smart meter installation. *See Povacz v. PECO Energy Company*, Docket No. C 2012-2317176 (Opinion and Order entered January 24, 2013).

The Complainants cannot prevail on this claim.

#### RFs and the Health of Mrs. Quigley

The Complainants contend that installation of a smart meter at their home would be unreasonable given the medical state of Teresa Mendez-Quigley. The Commission has stated that a customer should be heard on an allegation that equipment installed by PECO may be unsafe or its installation unreasonable. *Paul v. PECO Energy Co.*, Docket No. C-2015-2475355 (Opinion and Order entered June 14, 2018) (*Paul v. PECO*).

In *Paul v. PECO* and *Frompovich v. PECO Energy Co.*, Docket No. C-2015-2474602 (Opinion and Order entered May 3, 2018), the Commission noted that pursuant to Section 1501 of the Code, the Commission developed regulations governing electric safety standards. Under these regulations, an EDC must use reasonable efforts to properly warn and protect the public from danger. The EDC must also exercise reasonable care to reduce the hazards to which customers may be subjected to by reason of the EDC's provision of electric utility service and its associated equipment and facilities. *See* 52 Pa. Code § 57.28(a)(1).

Teresa Mendez-Quigley has an auto-immune disease, Sjögren's, low Vitamin D and osteoporosis and she has a family history of coronary ailments. "Sjögren's is a systemic autoimmune disease that affects the entire body. Along with symptoms of extensive dryness, other serious complications include profound fatigue, chronic pain, major organ involvement, neuropathies and lymphomas." (Complainant's Exhibit A-3; Tr. 56-57). It is the Complainants' position that radiofrequencies/microwaves impact the immune system.

James Quigley became increasingly concerned about the health of his wife and installation of an AMI meter as he continued to find articles reporting a connection between RFs, smart meters and negative health effects. The Quigleys have attempted to minimize RF exposure in their home by using hardwired computers, not having a cordless phone and not having other wireless devices. (FOFs 67-72).

Mr. Quigley asserted in his testimony that radiofrequencies/microwaves impact vitamin D synthesis and that Vitamin D synthesis is essential for calcium absorption. He also asserted that radiofrequencies/microwaves impact cardiovascular health. (Tr. 16-17). In his readings, he found articles stating that RFs can cause arrhythmias and other cardiovascular challenges. (Tr. 103).

The Complainants want to protect the health of Teresa Mendez-Quigley given her medical condition. Mrs. Mendez-Quigley testified that given her Sjögren's, she is sensitive to a lot of different exposures, from chemical cleaners to materials and products that people use daily. (Tr. 47).

Mrs. Mendez-Quigley also testified that she is careful of anything that has a possible link to cancer because as a person with Sjögren's, she has a higher chance of developing lymphoma. (Tr. 58). She avoids using a microwave oven, does not have a cordless phone and uses the text function about once a day on her personal cell phone, which is a flip phone. (Tr. 53, 62). She has a work cell phone, which is not a smart phone, but often uses the landline instead. (Tr. 53, 64). Their home has no Wi-Fi connections and they do not use pesticides. (Tr. 53-54). The Complainants believe that installation of a smart meter would worsen the medical condition of Mrs. Mendez-Quigley. In particular, they are concerned that radiofrequency exposure will further compromise the ability of Mrs. Mendez-Quigley to synthesize Vitamin D. (Tr. 57, 98).

Mr. Quigley testified that they are concerned about "pulsed waves" from smart meters. (Tr. 73). It is his research and understanding that pulsed RFs impact and damage the functionality of the immune system. (Tr. 74-75; Complainants' Exhibit B-1; B2;). It is the also

his understanding that there are cellular activities impacted by RFs, i.e. biological effects. (Tr. 78). Based on his reading, he believes that biological effects are felt from the level of RFs emitted by PECO AMI meters. (Id.). He referenced a Trevor Marshall and a Paolo Boscolo as researchers concluding that immune system illness results from electro-smog, or exposure from RFs. (Tr. 79). He also testified that his information was found in peer-reviewed articles. As someone who worked in peer reviewed publishing for many years, he believes that the publishers of the articles would not have accepted the articles without believing what they stated. (Tr. 80).

As far as how the smart meters affect Mrs. Mendez-Quigley, Mr. Quigley asserted as follows:

The smart meter transmits a signal, the time frame for which it transmits a signal is unknown at the present moment because PECO has made conflicting statements about that, which I will address. And that signal, it's called a pulsed wave, interacts with anything in its path including the human body and it changes cellular functionality throughout the body but in the immune system. The immune impact any modulation, any suppression, any stimulation, any manipulation of the immune system in someone with an autoimmune condition would present a great challenge to managing that autoimmune condition.

(Tr. 86). In support of their position that RFs are harmful, James Quigley testified that in 2006, he used a multimeter to measure low frequency electromagnetic radiation in his body.

(Tr. 86, 91-92). He measured and then turned off circuits and concluded that his hip and back pain are reduced if he turns off a circuit in his bedroom and the garage below every night and that he has done this for ten years. (Tr. 94-95).

He further testified that based on his readings and research, which included the National Institutes of Health website, Vitamin D absorption is inhibited by EFs, negatively affecting bones and heart function, a particular concern given the family history of heart issues. (Tr. 99, 103). He also asserted that the FCC accepts that RFs will impact the human body. (Tr. 100-102). Given that the AMI will be installed approximately 31 inches from where his wife sleeps, he is concerned about the impact of RFs from the meter on his wife's health. (Tr. 102).

The Complainants also assert that PECO has been misleading about the AMI meters. They believe that PECO mailed information containing misrepresentations about the operational characteristics of the Company's AMI meters. (Tr. 17). Referencing a printout from the PECO website, Mr. Quigley testified that while PECO contends that its meters transmit only periodically, based on his reading of a California Council on Science and Technology (CCST) document on the PECO website, there is near continuous emission of RFs from PECO meters. (Tr. 110; Complainants' H-1, I.). Although he relied on the CCST report for the above contention, Mr. Quigley also questioned the accuracy of the CCST document with respect to its conclusions on the impact of smart meters on health issues. He also questioned the clarity of PECO's documents and information sources, stating the "data points" are different in different sources. (Tr. 111-113; Complainant's Exhibit I; Tr. 116).

James Quigley further testified that he is also concerned about the veracity of the CCST report because he reviewed invited responses that countered or questioned the report's statement that smart meters were safe and met FCC limits on RF exposure. (Tr. 118). Mr. Quigley further stated that even if the FCC guidelines on RF exposure were met, he and his wife are concerned that those limits are not strong enough. (Tr. 118-119). Particularly, he stated that he found studies that showed that 0.003 and 0.05 microwatts per minute have biological effects while the FCC limit is 1.6 watts per kilogram. (Tr. 119). The Complainants believe that such levels are not safe for someone like Teresa Mendez-Quigley, who has a compromised immune system. (Tr. 119).

The Complainants established that Mrs. Mendez-Quigley has a compromised immune system and other medical history that may make her more susceptible to exposures than others. Mr. Quigley, based on his knowledge of scientific publications, referenced reports that he found valid which suggested that RFs may impact the medical condition of Mrs. Mendez-Quigley. As such, the Complainants established a *prima facie* case.

However, PECO presented rebuttal evidence that was prevailing. It was established that the PECO AMI system does not emit EFs of the type and level of concern to the

Quigleys and PECO experts refuted the accuracy of the reports referenced by the Complainants to support their claim.

Glenn Pritchard is a professional engineer in the Commonwealth of Pennsylvania and is the Manager of Advanced Grid Operations and Technology. (Tr. 215). He was accepted as an expert in design, operation and technology of advanced meter installations, and testified on behalf of PECO. He addressed and rebutted the Complainant's concerns regarding the AMI equipment. Mr. Pritchard's testimony established that the Quigleys' understanding and concerns about an AMI meter system may apply to such systems in general but they do not apply to the meters and system used by PECO.

PECO tunes down its meters to transmit less often than the factory settings - from every 90 minutes to three or four times a day. (FOFs 50-51). Mr. Pritchard testified that PECO has Landis+Gyr, Aclara and Sensus Stratus AMI meters available. There is a FlexNet radio in each, which sends usage information to PECO for billing purposes. The Landis+Gyr and Sensus Stratus meters have a Zigbee radio, which communicates consumption information with smart appliances in the service address. The Zigbee radio in the Sensus Stratus meter can be turned off. (Tr. 218-235).

Mr. Pritchard testified that the FlexNet radio on the meters is designed to transmit away from the house and that the wall of the service address would attenuate the signal away from the house and therefore the RFs from the meters would not be that different from background signals already present at the service address. (Tr. 250-252). He also testified that while the Zigbee radios are designed to transmit into the house and communicate with smart appliances, an Aclara meter is available to the Complainants and does not have a Zigbee radio, and the Zigbee radio on the Sensus Stratus meter, if that is installed at the service address, can be turned off. (Tr. 247-251).

James Quigley expressed concern about the strength of the signal from the AMI meters, noting that if the signal is designed to transmit away from the home, it may have to communicate up to three miles away to a Tower Gateway Base Station, that will ultimately

transmit user information to PECO. (Tr. 251-251). Mr. Pritchard testified that the signal strength required for that transmission in PECO's system is relatively soft because PECO operates its AMI system on a licensed frequency. This is unlike other systems that operate on a public frequency, which would require a stronger signal, competing with wireless phones, consumer products and even toys for that signal. (Tr. 252). PECO is also not using the mesh AMI system of concern to the Complainants or as described in some informational literature. (Tr. 110, 229).

Mr. Pritchard also stated that because the Complainants have an outdoor meter, which are the best to communicate directly to the Tower Gateway Base Station, their meter would in all likelihood be set to four hours, which is the best communication on the system, for a total of .42 seconds of transmissions per day. (Tr. 257). The Complainants could choose whichever model of electric AMI meter they would prefer. (Tr. 260).

Dr. Christopher Davis was also called by PECO to testify regarding some of the concerns of the Complainants. He testified that the electromagnetic spectrum ranges from very low frequencies to very high frequencies such as x-rays and gamma rays and that there is a distinction between the ionizing radiation part of the spectrum and the non-ionizing part of the spectrum. (Tr. 280).

He noted that high frequencies of ionizing radiation such as ultraviolet exposure, gamma rays and x-rays are known to and can produce damage and are potentially dangerous. (Tr. 28). In contrast, he testified that the FlexNet and Zigbee radios that are part of the PECO AMI meters have outputs that are millions of times smaller than the exposure limits set by the Federal Communication Commission (FCC). (Tr. 281; CD-5). He also stated that exposure from the Zigbee radio is so small that it hardly changes the overall exposure compared to the already small exposure produced by the FlexNet radio. (Tr. 282; CD-14). The radiofrequency exposure from the AMI FlexNet radio attached to the gas meter is also millions of times smaller than the FCC limit. (Tr. 283-284).

If the Complainants have both the Gas module and the Sensus Stratus AMI electric meter, their total RF exposure would be 3.3 million times smaller than the FCC limits. (Tr. 283-284; CD-7). He also noted that while FCC limits are based on average exposure, even when looking at the exposure during peak periods of transmission, the FlexNet radio emits 37 and a half times less RFs and the Zigbee radio 3,000 times less. (Tr. 284; CD-8; Tr. 339; CD-7).

The Quigleys were concerned about what they described as pulses from the AMI meters. (Tr. 73). Dr. Davis testified that "in strict scientific terms, a pulse is a disturbance that goes up, reaches a level and then goes back down again" and that PECO's AMI meters do not produce pulsed fields. (Tr. 278).

Dr. Davis also looked at the emissions of PECO AMI meters and gas modules compared to the standards issued by the International Commission of Non-Ionizing Radiation Protection. The FlexNet radio emissions are 2.5 million times smaller than the standard and the Zigbee radio emissions are 164 million times smaller than this international standard. (Tr. 284-285; CD-9).

Dr. Davis also provided a chart showing that exposures from a microwave oven or cell phone or UHF TV transmitters are significantly larger than exposure from an AMI meter. (CD-10). As a more detailed comparison, Dr. Davis determined the UHF TV exposure at the Complainant's home from UHF TV stations. He calculated that the exposure from an AMI radio is 1,679 times smaller than the cumulative average radio frequency exposure from UHF TV. (Tr. 286-287; CD-11). Also, if the AMR meter currently at the Complainant's residence is replaced by an AMI meter, the Complainants' exposure to RFs would be reduced by 79 percent (Tr. 287; CD 12).

Mr. Quigley testified that based on the research studies he reviewed, biological effects occur at .003 microwatts per square centimeter. (Tr. 78). Dr. Davis testified that the exposure of concern to Mr. Quigley is 16 or 17 times larger than that emitted by the Aclara meter and gas module combined. (Tr. 291). According to Dr. Davis, non-ionizing radiation does not have enough energy to break chemical bonds, including the chemical bonds in DNA (CD-2).

The significance of this is that if a chemical bond is not broken, there is no subsequent chemical reaction involving the rearrangements of molecules or atoms in some way and therefore no biological effect. (Tr. 302). He further explained that heating of an object is the only generally accepted mechanism for causing biological effect. (Tr. 317). It was the testimony of Dr. Davis that the scientific community consensus is that low energy protons, such as those at issue, do not cause adverse biological effects. (Tr. 304).

The Quigleys referenced the Bio Initiative 2014 Supplement that urges a rethinking of RFs and whether pulsed and cumulative over time exposures have an effect, given the sensitivity of biological systems and tissue interactions,. (Quigley's Main Brief at 25). While Dr. Davis acknowledged that some scientists claim that they may see such affects at moderately high levels, he does not know of a single study that shows such effects at the low-level exposure from a PECO meter. (Tr. 278, 305).

Mr. Quigley questioned Dr. Davis with respect to studies reporting that biological effects from relatively small exposures were found. Dr. Davis disputed these findings, testifying that the methods of study used were not accepted or used by other scientists, that the studies had nothing to do with biological effects or that the studies could not be replicated and are not accepted by the scientific community. (Tr. 200-213).

Dr. Davis also testified that a cell phone, such as that used by the Complainants, is in constant communication with a cell tower even when you are not using it so there is constant background exposure to RFs if it is turned on and not in airplane mode. (Tr. 292). Based on the testimony of Mrs. Mendez-Quigley and her cell phone usage, Dr. Davis testified that she is getting ten times more exposure from her cell phone than she would get from an AMI meter, even with her limited usage. (Tr. 295).

Dr. Mark Israel was called by PECO to directly address the medical and health concerns of the Complainants. Dr. Israel has been the director of a program involving the study of Molecular Neuro-Oncology, and has studied, researched or taught in the areas of immunology, genetics, radiation oncology, cell biology, molecular and system biology, medical research and

radio frequency electromagnetic fields and health. He was also the Director of the Dartmouth - Hitchcock Cancer Center. (PECO MI-1).

Dr. Israel conducted searches of medical and scientific databases to identify all studies, both those that report an effect and those that report no effect, of radio frequency fields and the medical condition and symptoms reported by the Complainants. (PECO MI-2). The Complainants argue that Dr. Israel overlooked approximately 1,800 studies that reported biological impacts. (Quigley Main Brief at 31). These studies were generally dismissed by Dr. Israel.

Dr. Israel identified a valid study as one that was 1) asking about a specific hypothesis, 2) well designed to address the hypothesis 3) well executed and 4) correctly analyzing the data. (Tr. 391). He did not find or know of any studies that met these criteria and showed any relationship between ill health and the emissions at issue. (Tr. 388-395). He also stated that he would not cause his patients anxiety based on the poor articles and studies read suggesting that RFs were harmful. (Tr. 293-295).

Based on his experience and research, Dr. Israel testified there was no reliable medical basis upon which to conclude that radiofrequency fields from PECO's AMI or AMR meters cause, contribute to or exacerbate Sjögren's syndrome, Vitamin D deficiency, osteoporosis, peripheral neuropathy, lymphoma or cancer in general or cardiovascular disease. (Tr. 344-350). Dr. Israel testified that it was his expert opinion that there is no reliable basis to conclude that radiofrequency fields from PECO's meters cause any adverse health effects. (Tr. 35).

The Complainants questioned Dr. Israel's conclusions, noting that he no longer practiced medicine and therefore had no patients with the medical conditions of Mrs. Mendez-Quigley. (Tr. 354-356). The Complainants also questioned Dr. Israel regarding any articles or studies that he read that reported there was a health effect caused by RFs. (Tr. 358-365)

Dr. Israel testified that he had stopped seeing patients and devoted his career to research and teaching approximately a year prior to the hearing. (Tr. 285). He also testified that it is not his practice to memorize a large number of studies but that he would comment on specific studies presented to him. (Tr. 374). Dr. Israel challenged the validity of reports suggesting a link between the small RF emissions of an AMI meter and disease or negative health effects.

For example, a document from the Autoimmunity Foundation presented by the Complainants was characterized by Dr. Israel as an "article" as opposed to scientific research because the writers did not follow principles of scientific studies, using no control group or placebos. (Tr. 365-367). Dr. Israel also testified that there were no studies showing radiofrequency fields affect Sjögren's or osteoporosis or Vitamin D deficiencies. (Tr. 373). He particularly found the electro-smog article referenced by the Complainants "unconvincing," not providing any data and uninformative. (Tr. 364-366).

Dr. Israel also testified that while there are studies related to various aspects of cardiovascular performance, there are no studies that identified RFs as causing, contributing to or exacerbating cardiovascular disease. (Tr. 388). He also testified that no studies examined whether there is a health effect, distinguishing "effect" from "health effect." As an example, he stated that if he pushed his face, it may have an effect. His blood pressure may go up a bit, but his body would be able to maintain homeostasis and bring his blood pressure back to normal. Dr. Israel stated that he would not have a health effect from pushing his face until his blood pressure was held out of that normal range. (Tr. 388-389).

Dr. Israel did identify one study that reported to have found a cardiovascular impact by RFs. He did not find that study reliable in that there was no effort to see whether it was reproducible, it was not a blinded study, the exposures were not well characterized, and the study contained methodology and design flaws. (Tr. 389). The testimony of Dr. Israel was persuasive.

The Quigleys ask that the Wingspan Statement on the Precautionary Principle be considered, which they state provides that "When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." (Quigley's Main Brief at 19). However, the undersigned is compelled to consider whether there is "substantial evidence" to support finding on behalf of the Complainants. *Frederick Altland v.; Metropolitan Edison Company*, Docket No. C-2017-2582828 (Opinion and Order entered December 8, 2018); 2 Pa.C.S. § 704; *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm'n*, 578 A.2d 600, 602 (Pa.Cmwlth. 1990); *Consolidated Edison Company v. National Labor Relations Board*, 305 U.S. 197, 229, 59 S.Ct. 206, 217 (1938). Given that standard and the record, the Quigleys cannot prevail. The expert testimony and opinions of Dr. Israel, Dr. Davis and Mr. Pritchard were not countered by the Complainants with substantial or the preponderance of evidence.

In their brief, the Complainants ask that three experts that testified in other Commission hearings be allowed to authenticate studies that the Quigleys presented during their hearing. (Quigley's Main Brief at 9-14). As noted during the hearing, a Pre-hearing Order was issued September 7, 2017, that required all parties to exchange expert and witness names and testimony summaries no later than February 20, 2018, in preparation for the April 17-18, 2018 hearing. The Complainants provided no names of experts to PECO by the deadline or at any time prior to the briefs. (Tr. 83). The Pre-hearing Order issued on September 7, 2017, is straightforward and not ambiguous - February 20, 2018, was the deadline to provide expert names and summaries.

To allow reference to the testimony of or consider experts in other matters at this date would be prejudicial to PECO. The Commission has affirmed this principle in *Mary Paul v. PECO Energy Co.*, Docket No. C 2015-2475355 (Opinion and Order entered June 14, 2018) at 20-21, stating:

Although our Regulation at 52 Pa. Code § 5.407 allows for admission of the records of other proceedings, we stand by our previous pronouncement that in instances where a party seeks to admit evidence after the hearing, "admission of such extra-record testimony violates the principle of fundamental fairness and

violates the due process rights of other parties who have no opportunity to cross examine a witness in a separate hearing.”

*Paul, referencing Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan and Expedited Approval of its Compact Fluorescent Lamp Program, 2009 Pa. PUC LEXIS 2301.*

Given the medical history of Mrs. Mendez-Quigley, it is understandable that the Quigleys are concerned about any possible health effects of the installation of a smart meter. However, the evidence presented does not support finding that installation of any of the PECO smart meters at the service address would be detrimental to the health of Mrs. Mendez-Quigley in violation of Section 1501.

PECO has three meters from which the Quigleys can choose. In their brief, the Quigleys indicated that they are particularly concerned about the Zigbee radio transmitting a signal every 30 seconds to find a smart device when they have no smart devices in the home. (Quigley Main Brief at 35). If the Quigleys remain anxious about the Zigbee radio, they can choose to have installed the Aclara or Sensus Stratus meters. The Aclara does not have a Zigbee radio and the Zigbee radio on the Sensus Stratus can be turned off. They each emit RFs more than 3 million times less than the FCC limit.

The Complainants did not present a preponderance of evidence to rebut the competent and expert testimony of PECO’s witnesses. Additionally, the Quigleys reported no negative effects of the AMR meter at the service address and the AMI meters proposed to be installed will result in a 79% decrease in RFs. All the meters proposed to be installed at the Quigley residence emit RFs far less than the maximum exposure allowed by the FCC. (FOFs 59-62). Given that, the Complainants cannot prevail on this claim.

### Due Process

In their brief, the Complainants contend that installation of an AMI meter at the service address is a violation of due process. (Quigley Main Brief at 47). Due Process is

satisfied when administrative agencies, like the Public Utility Commission, provide notice and the opportunity to appear and be heard to the parties appearing before them. *Schneider v. Pa. Pub. Util. Comm'n.*, 479 A.2d 10 (Pa.Cmwlt. 1984). The Commission has specifically recognized the right of customers to be heard regarding smart meters. In *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064 (Order entered September 3, 2015), the Commission held that customers "should have the opportunity to be heard on [ ] averments regarding the 'deleterious health symptoms' related to the smart meter." *Id.* at 18.

The Complainants refused installation of a PECO smart meter. They filed a Complaint with the Commission to prevent installation and the administrative procedures and the hearing provided the Complainants with an opportunity to be heard. That opportunity continued with briefs submitted and the instant review addressing their concerns about PECO AMI meters. There is no violation of Complainant's due process rights here.

#### CONCLUSIONS OF LAW

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

2. Due Process is satisfied when administrative agencies, like the Public Utility Commission, provide notice and the opportunity to appear and be heard to the parties appearing before them. *Schneider v. Pa. Pub. Util. Comm'n.*, 479 A.2d 10 (Pa.Cmwlt. 1984).

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

4. Decisions by the Commission must be supported by substantial evidence in the record. 2 Pa.C.S. § 704.

5. Utility companies are required to furnish and maintain adequate, efficient, safe, and reasonable service and facilities. *Paul v. PECO Energy Company*, Docket No. C 2015-2475355 (Opinion and Order entered June 14, 2018); 52 Pa.Code § 57.194.

6. There is insufficient evidence to support a finding that Complainant will be adversely affected by the smart meter or that PECO's use of a smart meter will constitute unsafe or unreasonable service in violation of 66 Pa.C.S. § 1501. *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064 at 23 (Order entered January 28, 2016) (citing *Woodbourne-Heaton*, 1992 Pa. PUC Lexis 160, at \*12-13).

7. The Complainants have not established that installation of an AMI meter at the service address is unsafe or unreasonable. 66 Pa.C.S. § 332(a).

8. A utility is permitted to provide notice to a customer and shut off service when a customer fails to permit access to meters, service connections or other property of the public utility for the purpose of replacement, maintenance, repair or meter reading. 52 Pa. Code § 56.81.

### ORDER

THEREFORE,

IT IS ORDERED:

1. That the claims of the Complainants in James Quigley and Teresa Mendez- Quigley v. PECO Energy Company at Docket Number C-2017-2617558 are denied and dismissed.

