

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Linda and Hubert Beck	:	
	:	
v.	:	C-2018-3002924
	:	
PPL Electric Utilities Corporation	:	

INITIAL DECISION

Before
Elizabeth H. Barnes
Administrative Law Judge

INTRODUCTION

Two residential customers filed a complaint seeking a directive that an electric distribution company (EDC) remove a smart meter a/k/a “Advanced Metering Infrastructure (AMI) meter” or “Radio Frequency (RF) meter” at their residence for health, safety, and privacy reasons. The customers also allege that their bills are higher since the installation of the smart meter. The customer’s request the current meter be replaced with an “old analog meter.” The complaint will be dismissed for failure to prove by a preponderance of evidence that the installation of the smart meter constitutes unsafe or unreasonable service under 66 Pa. C.S. § 1501 or otherwise violates the Public Utility Code, a Commission order or regulation or a Commission-approved tariff of the company.

HISTORY OF THE PROCEEDING

On June 13, 2018, Linda and Hubert Beck (Complainants) filed the instant Complaint with the Pennsylvania Public Utility Commission (Commission) against PPL Electric Utilities Corporation (PPL or Respondent) averring they wish to opt out of a smart meter installation at their residence, 933 Texter Mountain Road in Robesonia, Lebanon County, Pennsylvania for

health, safety, and high billing reasons. Complainants request a directive that PPL: 1) remove an AMI RF meter; 2) replace it with an analog meter; and 3) not terminate their electric service.

The Complaint was served upon PPL on June 22, 2018. On July 12, 2018, Respondent filed an Answer. The Answer admitted that the Respondent provides electric service to the Complainants at the address listed on the Complaint. The Answer contends that the Respondent is required to install AMI, or smart meters, for all automatic meter reading (AMR) customers and that it has the right to terminate service for failure of the customer to permit access to the meter.

On July 17, 2018, a Hearing Notice was issued scheduling a telephonic hearing for November 29, 2018 and assigning the case to me as presiding officer. Upon a request from Complainant for an in-person hearing, a Corrected Notice was issued converting the telephonic hearing to an in-person hearing. Prehearing Orders were issued on August 10, 2018 and August 14, 2018.

Upon an unopposed request for a continuance of the hearing, a Notice was issued rescheduling the hearing to March 27, 2019. On January 26, 2019, an Amended Formal Complaint was filed. The Amended Complaint was served upon PPL on February 1, 2019. On February 19, 2019, PPL filed an Answer and New Matter to the Amended Complaint. On March 6, 2019, a Third Prehearing Order was issued. On March 26, 2019, the hearing was cancelled. On August 8, 2019 a Call-In Telephone Hearing Notice was issued rescheduling the cancelled hearing to November 5, 2019.

On August 8, 2019, a Fourth Prehearing Order was issued directing Complainant to serve copies of statements, reports and any direct written testimony of any expert witness upon PPL by September 4, 2019. PPL was directed to serve copies of its statements, reports, rebuttal testimony and exhibits to be presented at the hearing on Complainant by October 4, 2019. On September 20, 2019, the hearing was changed to 9:00 a.m. A Motion to Compel responses to discovery was filed by PPL on October 10, 2019. On October 19, 2019, Complainants filed an Answer to the Motion to Compel. On November 1, 2019, PPL filed a Motion in Limine. The Hearing was held as scheduled on November 5, 2019.

At the hearing, Complainants appeared *pro se* with several exhibits pre-marked A-O. Of these, Complainants Exhibits L and N were admitted. N.T. 20-26. Respondent appeared represented by Devin Ryan, Esquire and Curtis Renner, Esquire with 15 exhibits and four witnesses: Kevin Durkin, Donald Vinciguerra, Christopher Davis, Ph.D., and Mark Israel, M.D. All statements and exhibits were admitted into the record.

A transcript consisting of 99 pages was filed on December 3, 2019 and the record closed the same day. This case is ripe for a decision.

FINDINGS OF FACT

1. The Complainants in this proceeding are Linda and Hubert Beck, who reside at 933 Texter Mountain Road, Robesonia, Lebanon County, Pennsylvania (service property). N.T. 4-5.
2. The Respondent in this proceeding is PPL Electric Utilities Corporation, an electric distribution company (EDC). N.T. 5.
3. On June 30, 2014, PPL filed its new Smart Meter Plan intended to comply with all the requirements of Act 129 and the Commission's Smart Meter Implementation Order. PPL Electric Statement No. 4 at 4, PPL Exhibit DV-1.
4. PPL selected Radio Frequency ("RF") Mesh meters and metering system because the Company determined that the RF Mesh system would support the 15 capabilities required by Act 129 and the Smart Meter Implementation Order. PPL Electric Statement No. 4 at 4.
5. The individual RF Mesh meters are used as relay points to transmit data back to PPL. PPL Electric Statement No. 4 at 5-6.

6. Under the Smart Meter Plan, the RF Mesh meters are to be deployed between 2017 and 2019 for all of PPL's 1.4 million customers. PPL Electric Statement No. 4 at 6.

7. PPL had deployed over one million RF Mesh meters as of the November 5, 2019 hearing and none of them have caused a fire. PPL Electric Statement No. 4 at 10.

8. The RF Mesh meter installed at the service property on November 20, 2017, is the Landis + Gyr Focus 350 FOCUS AXR-SD meter. PPL Electric Statement No. 4 at 5-6.

9. The Landis + Gyr Focus AXR-SD meter is certified by the Underwriters Laboratories at UL 2735. PPL Electric Statement No. 4 at 8.

10. The Landis + Gyr Focus AXR-SD meter has an FCC Identification No. R7PEG1R1S2.

11. The Landis + Gyr Focus AXR-SD meter is compliant with the American National Standards Institute (ANSI) C12.10. PPL Electric Statement No. 4 at 8.

12. The Landis + Gyr Focus AXR-SD meter uses a digital process to record electric usage and is more accurate than an analog meter, which has a mechanical dial that can slow over time. PPL Electric Statement No. 11.

13. PPL Witness Davis has a Ph.D. in Physics and is a fulltime Professor with an endowed Chair at the University of Maryland, where for over 30 years he has taught Physics, Electrical Engineering, Electromagnetics, and RF Electromagnetics to undergraduate and graduate students. PPL Electric Statement No. 1 at 1-5.

14. In addition to his teaching, Dr. Davis is an active scientific researcher in the fields of Physics, Biophysics, Electrical Engineering, Bioelectromagnetics and RF

Bioelectromagnetics, conducting many scientific studies in these fields and publishing over 250 studies in peer-reviewed scientific journals. PPL Electric Statement No. 1 at 1-5.

15. Dr. Davis conducted a substantial amount of research on RF fields of the type produced by the AMI meters being used by PPL. PPL Electric Statement No. 1 at 3.

16. RF fields are part of the lower energy, non-ionizing portion of the electromagnetic spectrum which consists of lower frequency signals that do not have enough energy to break chemical bonds in cells or DNA. PPL Electric Statement No. 1 at 5-6.

17. RF fields come from many sources in our everyday environments, including AM/FM radio, television broadcast, cell phones and their communication networks, portable phones, garage door openers and Wi-Fi networks. PPL Electric Statement No. 1 at 5-7, 14, PPL Electric Exhibit CD-1.

18. The Federal Communications Commission (FCC) has determined safe public exposure levels for RF fields from devices that transmit RF signals, such as the AMI meters. PPL Electric Statement No. 1 at 9-10.

19. The FCC safe public exposure limits are based on evaluations of the body of scientific research on RF fields and were adopted in consultation with other federal agencies, including the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA). PPL Electric Statement No. 1 at 9-10.

20. The levels of RF fields from the Landis + Gyr Focus AXR-SD AMI meters are 98,000 times lower than the RF exposure safety limits established by the FCC. PPL Electric Statement No. 1 at 13, PPL Electric Exhibit CD2.

21. RF signals from the AMI meter are of very short duration and will occur for only a total of 84 seconds over a 24-hour period. PPL Electric Statement No. 1 at 7.

22. There are five television broadcast towers within a 50-mile radius of Complainants' residence. PPL Electric Statement No. 1 at 15.

23. Based on the locations of each tower and their RF power outputs, the constant background level of RF fields at Complainants' residence are 7.21 times higher than the RF signals from the AMI meter at three meters distance. PPL Electric Statement No. 1 at 15, PPL Electric Exhibit CD-5.

24. The RF exposure from a cell phone used at a person's head is 260,000 times higher than the average RF levels one meter away from the Company's new smart meter. PPL Electric Statement No. 1 at 14.

25. PPL Witness Israel received his undergraduate degree from Hamilton College and his medical degree from the Albert Einstein College of Medicine, and he completed his medical training at Harvard Medical School. PPL Electric Statement No. 2 at 1.

26. Dr. Israel is a Professor of Medicine, Pediatrics, and Molecular and Systems Biology at the Dartmouth Medical School and the Executive Director of the Israel Cancer Research Fund in New York, an international charitable fund for medical and scientific research programs. PPL Electric Statement No. 2 at 1.

27. Dr. Israel is board certified and licensed to practice medicine. PPL Electric Statement No. 2 at 3.

28. Dr. Israel has conducted medical research for 40 years in a wide variety of areas, including systems biology, biochemistry, cell biology, cancer, molecular biology, and molecular genetics and has published over 245 medical research studies in leading peer-reviewed scientific journals. PPL Electric Statement No. 2 at 3-4.

29. Dr. Israel has taught medicine and science for more than 30 years to medical students, graduate students, interns, residents, and practicing physicians in a number of fields, including endocrinology, immunology, hematology, neurology, cardiology, biochemistry,

cell biology, genetics, molecular genetics, medical oncology, and radiation oncology. PPL Electric Statement No. 2 at 3.

30. Claimed symptoms related to Electromagnetic Hypersensitivity (EHS) are more accurately described as “Idiopathic Environmental Intolerance” (“IEI”), in which “idiopathic” means “cause unknown,” rather than electromagnetic hypersensitivity. PPL Electric Statement No. 2 at 13.

31. There are no established medical criteria for the diagnosis or treatment of IEI. PPL Electric Statement No. 2.

32. IEI and the variety of symptoms attributed to it are not caused by exposure to RF fields. PPL Electric Statement No. 2 at 13.

33. The World Health Organization and a number of other public health authorities have concluded that the scientific research on RF exposures from cell phone use, which are far higher than the RF from PPL’s smart meters, has not shown that RF fields cause adverse health effects. PPL Electric Statement No. 2 at 10-15, PPL Electric Exhibit MI-1.

34. Several U.S. state public health authorities also have investigated claims about health effects from smart meters and have concluded that there is no credible scientific evidence that RF fields from smart meters will cause or contribute to any adverse health effects. PPL Electric Statement No. 2 at 11, PPL Electric Exhibit MI-2.

35. It is not generally accepted in the medical community that IEI and the variety of symptoms attributed to IEI are caused by exposure to RF fields. PPL Electric Statement No. 2 at 14.

36. Complainants are neither medical professionals nor engineers. N.T. 27-28, 36-37.

37. Mrs. Beck has a TracFone mobile wireless phone she keeps in her car and uses sporadically. N.T. 28.

38. In January 2019, Mrs. Beck began seeing a physician, Dr. Stacey Kuhns, M.D. for polyneuropathy. N.T. 30-31, Complainant Exhibit L.

39. Complainants have had headaches and/or chest pains beginning on November 30, 2017, since the installation of a smart meter at their premises. N.T. 14-17, 34-35, Complainants Exhibit L.

40. There is no reliable scientific basis to conclude that exposure to RF fields from the AMI meters being used by PPL cause or contribute to adverse effects on sleep quality, tinnitus, or any other illness or disease including polyneuropathy. PPL Statement No. 2 at 17-18.

DISCUSSION

Legal Standards

Under Section 332(a) of the Public Utility Code, 66 Pa. C.S. § 332(a), “the proponent of a rule or order has the burden of proof.” It is well-established that “[a] litigant’s burden of proof before administrative tribunals as well as before most civil proceedings is satisfied by establishing a preponderance of evidence which is substantial and legally credible.” *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm’n*, 578 A.2d 600, 602 (Pa. Cmwlth. 1990). The preponderance of evidence standard requires proof by a greater weight of the evidence. *Commonwealth v. Williams*, 557 Pa. 207, 732 A.2d 1167 (1999). This standard is satisfied by presenting evidence more convincing, by even the smallest amount, than that presented by another party. *Brown v. Commonwealth*, 940 A.2d 610, 614 n.14 (Pa. Cmwlth. 2008).

If the party seeking a rule or order from the Commission sets forth a *prima facie* case, then the burden shifts to the opponent. *MacDonald v. Pa. R.R. Co.*, 348 Pa. 558, 36 A.2d 492 (1944). Establishing a *prima facie* case requires either evidence sufficient to make a finding of fact permissible or evidence to create a presumption against an opponent which, if not met,

results in an obligatory decision for the proponent. Once a *prima facie* case has been established, if contrary evidence is not presented, there is no requirement that the party seeking a rule or order from the Commission must produce additional evidence to sustain his or her burden of proof. See *Replogle v. Pa. Elec. Co.*, 54 Pa. PUC 528, 1980 Pa. PUC LEXIS 20 (Order entered Oct. 9, 1980); see also *Dist. of Columbia's Appeal*, 21 A.2d 883 (Pa. 1941); *Application of Pennsylvania-American Water Co. for Approval of the Right To Offer, Render, Furnish or Supply Water Serv. to the Pub. in Additional Portions Of Mahoning Twp., Lawrence County, Pa.*, Docket No. A-212285F0148, 2008 Pa. PUC LEXIS 874 (Order entered Oct. 29, 2008).¹

In addition, a person does not sustain his or her burden of proof in an electric and magnetic field exposure case when the record evidence, “taken as a whole, leads to the ultimate finding and conclusion that the scientific studies at present are inconclusive.” *Letter of Notification of Phila. Elec. Co. Relative to the Reconstructing and Rebuilding of the Existing 138 kV Line to Operate as the Woodbourne-Heaton 230 kV Line in Montgomery and Bucks Counties*, 1992 Pa. PUC Lexis 160, at *210-11 (June 29, 1992) (Initial Decision) (“*Woodbourne-Heaton*”). Rather, the person must demonstrate by a preponderance of the evidence that such exposure actually causes adverse health effects. *Id.* at *211. Specifically, in AMI meter-related matters, the Commission has held that “[t]he Complainant will have the burden of proof during the proceeding to demonstrate, by a preponderance of the evidence, that [the utility] is responsible or accountable for the problem described in the Complaint.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064, p. 18 (Order entered Sept. 3, 2015); see also *Romeo v. Pa. Pub. Util. Comm'n*, 154 A.3d 422, 429 (Pa. Cmwlth. 2017) (finding that the smart meter complainant should have a hearing to try to prove his claim through “the testimony of others as well as other evidence that goes to that issue.”)

¹ In addition, any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence. *Met-Ed Indus. Users Grp. v. Pa. Pub. Util. Comm'n*, 960 A.2d 189, 193 n.2 (Pa. Cmwlth. 2008) (citing 2 Pa.C.S. § 704). Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Borough of E. McKeesport v. Special/Temporary Civil Serv. Comm'n*, 942 A.2d 274, 281 n.9 (Pa. Cmwlth. 2008) (citation omitted). Although substantial evidence must be “more than a scintilla and must do more than create a suspicion of the existence of the fact to be established,” *Kyu Son Yi v. State Bd. of Veterinary Med.*, 960 A.2d 864, 874 (Pa. Cmwlth. 2008) (citation omitted), the “presence of conflicting evidence in the record does not mean that substantial evidence is lacking.” *Allied Mech. and Elec., Inc. v. Pa. Prevailing Wage Appeals Bd.*, 923 A.2d 1220, 1228 (Pa. Cmwlth. 2007) (citation omitted).

Section 701 of the Public Utility Code provides that “any person . . . having an interest in the subject matter . . . may complain in writing, setting forth any act or thing done or omitted to be done by any public utility in violation, or claimed violation, of any law which the commission has jurisdiction to administer, or of any regulation or order of the commission.” 66 Pa. C.S. § 701. Therefore, a complainant must generally demonstrate that the public utility violated the Public Utility Code or a Commission regulation or order.

The Commission has exclusive jurisdiction to adjudicate “issues involving the reasonableness, adequacy, and sufficiency” of a public utility’s facilities and services. *See Elkin v. Bell of Pa.*, 420 A.2d 371, 374 (Pa. 1980) (citations omitted). Section 1501 of the Public Utility Code states, in pertinent part, that:

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. Subject to the provisions of this part and the regulations or orders of the commission, every public utility may have reasonable rules and regulations governing the conditions under which it shall be required to render service. . .

66 Pa. C.S. § 1501.

When presented with a challenge to an AMI meter installation, the Commission has pronounced that “[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 the 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 (Opinion and 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) (*Frompovich*).

Health and Safety Concerns

Complainants argue PPL violated 66 Pa. C.S. §§ 1501 and 1502 (relating to discrimination between customers) by installing the AMI meter in an unsafe manner that is deleterious to their health. Specifically, Complainants argue that on November 20, 2017, a smart meter was installed at their service property. Soon after the meter was installed, Mr. Beck experienced a “pulsing” in his chest and headaches. N.T. 35. Six or seven days after the smart meter was installed, Mrs. Beck became ill with migraine headaches for “a couple of months” beginning November 30, 2017. N.T. 14-17. Complainants offered as evidence of worsening health symptoms caused by an AMI meter, Complainants Exhibit L (Stacey Kuhns, M.D.’s medical notes dated November 4, 2019). Dr. Kuhns stated that her patient, Linda Beck, suffers from Electromagnetic Sensitivity, Diagnosis Code W90.0XXS Exposure to Radiofrequency Sequela and W90.8XXS Nonionizing Radiation Sequela, which began as polyneuropathy in her feet and became worse. Dr. Kuhns stated Ms. Beck did not have daily migraine headaches prior to November 30, 2017. Dr. Kuhns stated Ms. Beck’s symptoms of palpitations, chest pain, difficulty concentrating and finding words, fatigue, forgetfulness, anxiety, depression, sleep problems, muscle pulsing in chest and legs, noise sensitivity, ringing in the ears, burning eyes and indigestion occur when Ms. Beck is exposed to even small doses of electromagnetic radiation for even a short amount of time. Complainant Exhibit L.

Conversely, PPL argues any health concerns Mr. and Mrs. Beck have are without merit and have been clearly rebutted by PPL’s witnesses. N.T. 92-93. Further, as Dr. Kuhns was not available for cross examination regarding her qualifications to render a diagnosis of electromagnetic sensitivity, Complainant Exhibit L should not be given any weight as it is hearsay evidence.

Disposition

Complainants have failed to show any health concerns such as chest pains or headaches are likely to be caused, contributed to, or exacerbated by the AMI meter installed at their service property. Although Complainants offered testimony and medical letters regarding some health conditions they may have or may be experiencing as of the date of the hearing, there

is insufficient evidence to show any of these health conditions are as a result of an AMI meter installed at their premises or that the health conditions would be exacerbated by the installation of an AMI meter at the service property. PPL Electric Statement No. 2 at 7. Complainants are neither engineers nor medical professionals, and their lay opinions as to the probable health effects of radio frequency fields or electromagnetic fields emitting from an RF meter to be installed at their service property are non-persuasive. Further, the medical notes of Dr. Kuhns are inconclusive in Complainants Exhibit L, which was authored by an individual not available for cross-examination at the hearing. Complainant Exhibit L is unreliable hearsay evidence.

Self-reported symptoms of electromagnetic hypersensitivity claimed to be caused by RF fields include: buzzing in ears, headaches, sleep disturbance, palpitations, nervousness, fatigue and lethargy. PPL Electric Statement No. 2 at 12-13. A “nocebo effect” may present symptoms similar to those Complainants complain of in IEI-EMF and control participants; however, there is no reliable medical basis to conclude that RF fields from the AMI meters being installed by PPL would cause, contribute to, or exacerbate any of the symptoms of headaches or chest pains claimed by Complainants, or any other adverse health effects. PPL Electric Statement No. 2 at 14-17.

I am persuaded by the credible testimony of Dr. Israel, who testified claimed symptoms related to EHS are more accurately described as IEI in which “idiopathic” means “cause unknown.” PPL Electric Statement No. 2. Dr. Israel also evaluated scientific research on RF fields and adverse health effects generally. He testified that he has been systematically examining this research over the past several decades and that many hundreds of studies have been published. PPL Electric Statement No. 2. He testified that three groups of controlled laboratory studies on animals “are particularly informative because they address fundamental biological functions that are very sensitive to any disruption: genetics, reproduction, and growth and development.” PPL Electric Statement No. 2 at 8-9. Dr. Israel described a number of the studies in these areas which he considered good examples of well-designed and well-conducted studies. These studies found no adverse effects on genetics, fertility, reproduction, growth or development in the animals exposed to RF fields. PPL Electric Statement No. 2 at 9. Dr. Israel also provided examples of well-conducted animal studies on RF fields and cancer. He testified that these studies, which involved animals with lifetime exposures to RF fields, did not find any

increased incidence in cancer in the RF exposed animals compared to non-exposed animals. PPL Electric Statement No. 2 at 9-10.

Based on the body of scientific research showing no consistent and reproducible effects from RF fields on cancer and other adverse health effects, the World Health Organization (“WHO”) has concluded that “no adverse health effects have been established as being caused by mobile phone use.” PPL Electric Statement No. 2 at 9-11. A number of other public health authorities, including agencies in Canada, the U.K., Sweden, Norway, the Netherlands, and New Zealand, among others, have recently reached similar conclusions. PPL Electric Statement No. 2 at 10-11; PPL Electric Exhibit MI-1. In addition, several U.S. state public health authorities and Public Utility Commissions have investigated claims about health effects from smart meters. These include the Maine Center for Disease Control (2010), the Vermont Department of Health (2012), Arizona Department of Health, Office of Environmental Health (2014), and North Carolina Department of Health and Human Services, Division of Public Health, Occupational and Environmental Epidemiology Branch (2015). These evaluations by State public health authorities and Public Utility Commissions conclude that RF fields from smart meters do not pose any public health risk. PPL Electric Statement No. 2; PPL Electric Exhibit MI-2.

There is no reliable medical basis to conclude that RF fields from the AMI meter being used by PPL Electric will cause or contribute to the development of illness or disease. PPL Electric Statement No. 2 at 16. There is no reliable medical basis to conclude that RF fields from the AMI meter being used by PPL Electric would cause, contribute to, or exacerbate any of the symptoms claimed by the Complainants, or any other adverse health effects. PPL Electric Statement No. 2 at 18.

Additionally, on this issue, I find credible the expert testimony of PPL witness Dr. Christopher Davis who opined the Landis + Gyr AMI meter would not cause adverse health effects. Dr. Davis co-authored 255 articles published in peer-reviewed scientific journals, two books, twelve book chapters and 324 papers presented at scientific conferences. PPL Electric Statement No. 1 at 2. He conducted a substantial amount of research on RF fields of the type produced by the AMI meters being used by PPL. PPL Electric Statement No. 1 at 3. RF fields are part of the lower energy, non-ionizing portion of the electromagnetic spectrum which

consists of lower frequency signals that do not have enough energy to break chemical bonds in cells or DNA. PPL Electric Statement No. 1 at 5-6. RF fields come from many sources in our everyday environments, including AM/FM radio, television broadcast, cell phones and their communication networks, portable phones, garage door openers and Wi-Fi networks. PPL Electric Statement No. 1 at 5-6, 14.

The FCC has determined safe public exposure levels for RF fields from devices that transmit RF signals, such as the AMI meters. PPL Electric Statement No. 1 at 9-10. The FCC safe public exposure limits are based on evaluations of the body of scientific research on RF fields and were adopted in consultation with other federal agencies, including the FDA and the EPA. PPL Electric Statement No. 1 at 9-12. Recently, on December 4, 2019, the FCC released a Resolution of Notice of Inquiry, Second Report and Order, Notice of Proposed Rulemaking, and Memorandum Opinion and Order, *In the Matter of Targeted Changes to the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields* at Case No. 19-226. The FCC surmised:

First, we resolve a Notice of Inquiry that sought public input on, among other issues, whether the Commission should amend its existing RF emission exposure limits. After reviewing the extensive record submitted in response to that inquiry, we find no appropriate basis for and thus decline to propose amendments to our existing limits at this time.

Id. at 2 (footnote omitted).

Thus, it appears the FCC has recently reviewed scientific studies/comments regarding its standards, and determined there was no need to propose amendments to the existing limits. *Id.* at 2.

The levels of RF fields from the Landis + Gyr Focus AXR-SD AMI meters are 98,000 times lower than the current RF exposure safety limits established by the FCC. PPL Electric Statement No. 1 at 13, PPL Electric Exhibit CD2. RF signals from the AMI meter are of very short duration and will occur for only a total of 84 seconds over a 24-hour period. PPL Electric Statement No. 1 at 7.

There are five television broadcast towers within a 50-mile radius of Complainants' residence. PPL Electric Statement No. 1 at 15. Based on the locations of each tower and their RF power outputs, the constant background level of RF fields at Complainants' residence are 7.21 times higher than the RF signals from the AMI meter. PPL Electric Statement No. 1 at 15, PPL Electric Exhibit CD-5. The RF exposure from a cell phone used at a person's head is 260,000 times higher than the average RF levels one meter away from the Company's new smart meter. PPL Electric Statement No. 1 at 14. Mrs. Beck has a TracFone cell phone, which emits many more times higher radio frequency fields when held at arm's length or at the ear of an individual than an AMI meter would emit at three meters distance. The amount of radio frequency fields the Complainants are being exposed to is *de minimus* and negligible in comparison to the background level of radio frequency fields at the service property, which are all well below the current FCC standards that have recently been reaffirmed. *Id.* For all of these reasons, I find in favor of PPL on this issue.

High Billing

Complainants averred in their complaint that there has been high billing since the installation of their meter. Conversely, PPL argues the AMI meter installed is more accurate than an analog meter and is tested for accurateness before being deployed in the field. PPL argues that Complainants may request a meter test at any time pursuant to Commission regulations and PPL's tariff but have not done so.

Disposition

In cases of alleged high billing, to establish a prima facie case of overbilling, a complainant, must show: (1) that the number of occupants in the household has not changed, (2) that the potential for energy utilization was low and (3) that complainant's billing history shows no prior abnormalities. Once the complainant makes out a prima facie case, the burden of proof then shifts to the utility however; the ultimate burden of persuasion always remains with the complainant. *Malcolm Waldron v. Philadelphia Electric Company*, 54 Pa. PUC 98 (1980); *Repogle v. Pennsylvania Electric Company*, 54 Pa. PUC 528 (1980).

Although Complainants averred in their complaint that there has been high billing since the installation of their meter, no evidence in the form of either testimony or bills was offered to show any of the three elements above. The RF Mesh meter installed at the service property is the Landis + Gyr Focus 350 FOCUS AXR-SD meter. N.T. 12, PPL Electric Statement No. 4 at 5-6. The Landis + Gyr Focus AXR-SD meter is certified by the Underwriters Laboratories at UL 2735. PPL Electric Statement No. 4 at 8. The Landis + Gyr Focus AXR-SD meter has an FCC Identification No. of R7PEG1R1S2. The Landis + Gyr Focus AXR-SD meter is compliant with the American National Standards Institute (ANSI) C12.10. PPL Electric Statement No. 4 at 8. The Landis + Gyr Focus AXR-SD meter uses a digital process to record electric usage and is more accurate than an analog meter, which has a mechanical dial that can slow over time. PPL Electric Statement No. 11. Complainants may request a meter test if they believe the meter is inaccurate in accordance with Commission regulations and the Company's tariff provisions. However, there is no evidence to suggest they requested same, and I am not persuaded by the evidence presented in this case to direct a meter test or a high bill investigation be performed because the meter on the service property was recently tested for accurateness prior to its installation and found to be accurate within the Commission's regulations. Accordingly, I find in favor of PPL on this issue.

CONCLUSION

For all of these aforementioned reasons, the Complaint will be dismissed for failure to prove by a preponderance of evidence that the installation of this smart meter constitutes unsafe or unreasonable service under 66 Pa. C.S. § 1501 or otherwise violates the Public Utility Code, a Commission order or regulation or a Commission-approved tariff of the company. Although the Complainants are genuine in their concerns, the Commission's decisions cited above are controlling.

CONCLUSIONS OF LAW

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

2. PPL Electric Utilities Corporation's smart meter procurement and installation plan, which was approved by Commission Order in the case of *Petition of PPL Electric Utilities Corp. for Approval of Its Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2014-2430781, p. 24 (Order Entered Sept. 3, 2015) does not contain a provision for customers to opt out of smart meter installation.

3. Under Section 332(a) of the Pennsylvania Public Utility Code, the proponent of a rule or order has the burden of proof. 66 Pa. C.S. § 332(a). It is well established that "[a] litigant's burden of proof before administrative tribunals as well as before most civil proceedings is satisfied by establishing a preponderance of evidence which is substantial and legally credible." *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm'n*, 578 A.2d 600, 602 (Pa. Cmwlth. 1990).

4. The preponderance of evidence standard requires proof by a greater weight of the evidence. *Commonwealth v. Williams*, 557 Pa. 207, 732 A.2d 1167 (1999). This standard is satisfied by presenting evidence that makes the existence of a contested fact more likely than its nonexistence. *Brown v. Commonwealth*, 940 A.2d 610, 614 n.14 (Pa. Cmwlth. 2008) (citation omitted).

5. A person does not sustain his or her burden of proof in an electric and magnetic field exposure case when the record evidence, "taken as a whole, leads to the ultimate finding and conclusion that the scientific studies at present are inconclusive" rather, the person must demonstrate by a preponderance of the evidence that such exposure actually causes adverse health effects. *Letter of Notification of Phila. Elec. Co. Relative to the Reconstructing and Rebuilding of the Existing 138 kV Line to Operate as the Woodbourne-Heaton 230 kV Line in Montgomery and Bucks Counties*, 1992 Pa. PUC Lexis 160, at *210-11 (June 29, 1992) (Initial Decision).

6. In AMI meter-related matters, the Commission has held that "[t]he Complainant will have the burden of proof during the proceeding to demonstrate, by a preponderance of the evidence, that [the utility] is responsible or accountable for the problem

described in the Complaint.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064, p. 18 (Order entered Sept. 3, 2015).

7. Section 701 of the Public Utility Code provides that “any person . . . having an interest in the subject matter . . . may complain in writing, setting forth any act or thing done or omitted to be done by any public utility in violation, or claimed violation, of any law which the commission has jurisdiction to administer, or of any regulation or order of the commission.” 66 Pa. C.S. § 701.

8. On December 4, 2019, the FCC reaffirmed its radio frequency emissions standards in a Resolution of Notice of Inquiry, Second Report and Order, Notice of Proposed Rulemaking, and Memorandum Opinion and Order, *In the Matter of Targeted Changes to the Commission’s Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields* at Case No. 19-226.

9. The Commission has exclusive jurisdiction to adjudicate “issues involving the reasonableness, adequacy, and sufficiency” of a public utility’s facilities and services. See *Elkin v. Bell of Pa.*, 420 A.2d 371, 374 (Pa. 1980) (citations omitted).

10. When presented with a challenge to an AMI meter installation, the Commission has pronounced that “[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 the 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, p. 23 (Order entered Jan. 28, 2016) (citing *Woodbourne-Heaton*, 1992 Pa. PUC Lexis 160, at *12-13).

11. Complainants have failed to sustain the burden of proof that installing the new AMI meter would violate the Public Utility Code or any Commission regulation or order. See 66 Pa. C.S. §§ 332(a), 701.

12. In cases of alleged high billing, to establish a prima facie case of overbilling, a complainant, must show: (1) that the number of occupants in the household has not changed, (2) that the potential for energy utilization was low and (3) that complainant's billing history shows no prior abnormalities. Once the complainant makes out a prima facie case, the burden of proof then shifts to the utility however; the ultimate burden of persuasion always remains with the complainant. *Malcolm Waldron v. Philadelphia Electric Company*, 54 Pa. PUC 98 (1980); *Repogle v. Pennsylvania Electric Company*, 54 Pa. PUC 528 (1980).

13. Complainants have failed to meet their burden of establishing a prima facie case of overbilling due to the installation of an AMI RF meter.

14. PPL is legally required to install the RF Mesh meter on the Complainants' property by Act 129 and Commission orders. See 66 Pa. C.S. § 2807(f); *Smart Meter Procurement and Installation*, Docket No. M-2009-2092655, pp. 9, 14 (Order entered June 24, 2009).

15. Nothing in Act 129 permits a customer to "opt-out" of a smart meter installation. See, e.g., *Starr v. PECO Energy Co.*, Docket No. C-2015-2516061, p. 11 (Order Entered Sept. 1, 2016).

16. The Commission previously determined that the Company's existing powerline carrier (PLC) meters are not compliant with Act 129 and the Commission's Smart Meter Implementation Order. See *Petition of PPL Electric Utilities Corporation for Approval of Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2009-2123945, p. 24 (Order entered June 24, 2010).

17. Under the Company's Commission-approved Smart Meter Plan, PPL must replace all of the PLC meters with the RF Mesh meters, which the Commission declared as meeting all of the requirements of Act 129 and the Commission's Smart Meter Implementation Order. See *Petition of PPL Electric Utilities Corp. for Approval of Its Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2014-2430781, p. 24 (Order Entered Sept. 3, 2015).

18. The Complainants have failed to demonstrate that the new AMI meter causes, contributes to, or exacerbates any adverse health effect.

19. The Complainants have failed to sustain their burden of proof that installing the new AMI meter constitutes unsafe or unreasonable service in violation of 66 Pa. C.S. § 1501.

ORDER

THEREFORE,

IT IS ORDERED:

1. That the Formal Complaint filed by Linda and Hubert Beck against PPL Electric Utilities Corporation at Docket No. C-2019-3002924 is denied and dismissed.
2. That the docket in this proceeding be marked closed.

Date: December 23, 2019

/s/
Elizabeth H. Barnes
Administrative Law Judge