

JAMES & TERESA MENDEZ-QUIGLEY
401 Longfield Road, Erdenheim, PA 19038

September 7, 2018

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Re. James Quigley and Teresa Méndez-Quigley v. PECO Energy Company
Docket No. C-2017-2617558

Dear Secretary Chiavetta:

The Quigley's Reply Brief is enclosed.

Sincerely yours,


James Quigley


Teresa Méndez-Quigley

cc: Honorable Darlene D. Heep, Administrative Law Judge
Ward L. Smith, PECO Counsel

**BEFORE THE
PA PUBLIC UTILITY COMMISSION**

James Quigley & Teresa Méndez-Quigley

v.

Docket No. C-2017-2617558

PECO Energy Company

Reply Brief of James Quigley and Teresa Méndez-Quigley

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**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

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Introduction

On April 17 and 18, 2018, the parties attended the Initial Hearing. On August 3, 2018, the main briefs were submitted. The Quigleys submit this Reply Brief.

The Complainants (Quigleys) have proven beyond a reasonable doubt that PECO's AMI electric meter and any and all radiofrequency transmitting meters will cause harm to Teresa's health.

PECO failed to provide substantial or persuasive evidence, especially including the inadequate performance of their expert witnesses. This has left PECO without the ability to claim that their radiofrequency meters are a safe or reasonable service according to PA Code Title 66, Chapter 15.

Therefore, the Court should rule for the Quigleys and require PECO to install analog-only meters, with no radiofrequency transmissions for gas and electric service.

Further, the Quigleys have proven beyond a reasonable doubt that PECO and the PUC have failed to interpret Act 129 lawfully, whether judged by the written law or the intent of the law. The PUC Court should therefore acknowledge the PUC interpretation of Act 129 was unlawful and that their Implementation Order is rendered Ultra Vires.

In response to PECO's Main Brief, Proposed Findings of Fact:

1. Agree. The Quigleys have lived here since 1997, or 21 years.
2. Agree, in part. Complainants were under direct threat of their electricity being shut off – not due to lack of payment; but rather because they did not acquiesce to PECO's demands to install a smart meter at their home, after informing PECO of Teresa's health concerns and the presence of a young child in the house.
3. Agree, in part. The Quigleys believe there is harm, based on the preponderance of peer-reviewed, scientific research which does find harm (Complainants' Main Brief, pp 19-25).

4. Agree, in part. The Quigleys believe there is harm, based on the preponderance of peer-reviewed, scientific research which does find harm (Complainants Main Brief, pp 25-28).
5. Agree in part. Given the extensive peer-review scientific and medical literature, radiofrequency transmissions may affect Teresa's health, especially given that she has a family history of coronary heart disease.
6. Agree, in part. Teresa's family has experienced serious systemic disease related to Sjogren's, including the death of her oldest sister who had lupus, another systemic autoimmune disease, and her mother who had rheumatoid arthritis, another systemic autoimmune disease, with secondary Sjogren's and heart failure. The most serious issue with Sjogren's is the body's immune system attacking its own healthy tissue.
7. Agree, in part. James Quigley did extensive research, given his vast experience of 15 years in the medical and scientific electronic publishing industry, where he acknowledges differences in study outcomes when paid for by industry versus those that are unbiased third-party verified. James based his opinion on an overwhelming preponderance of peer-reviewed literature that find harm to the immune system from radiofrequency transmissions. The Quigleys contend that PECO counsels' use of the phrase, "formed a concern," is an attempt to minimize the preponderance of peer-reviewed literature that clearly shows harm to the immune system and health in general from radiofrequency transmissions.
8. Agree.
9. Agree. The AMR meter was installed in 2001, prior to Teresa's diagnoses.
10. Agree, in part. James's extensive examination of the literature wherein he found cause for alarm led him and Teresa to be extremely worried about further exposures and their impact on vitamin D synthesis.
11. Agree. The Quigleys believe there is harm based on the preponderance of scientific research.

12. Agree, in part. The Quigleys have this concern for multiple reasons. Most importantly, Bathgate found that the Aclara and other meters were not operating as claimed to operate (Complainants' Main Brief, pp 11-13). The discrepancy between PECO's publicity literature on the periodicity of its Smart Meters and the article found on PECO's website by the CCST, are cause for concern.

The Quigleys would note that PECO did post the CCST report at PECO's own website without presenting any information about PECO's own system. Certainly, an intelligent citizen would expect the operational description present in the CCST report to represent PECO's system. PECO's obfuscation adds to the distrust.

No unbiased authority is holding PECO responsible for the truth on the transmissions, which can be changed at any time at PECO's will.

13. Agree, in part. The California Council on Science and Technology (CCST) is an industry-based association and cannot make credible statements on health.

14. Neither agree nor disagree.

15. Agree, in part. (Complainants' Main Brief, pp 46-47).

16. Agree, in part. The FCC stands for the Federal Communications Commission, which is not focused on health (Complainants' Main Brief, pp 46-47).

17. Agree, in part. The Quigleys believe there is harm based on the preponderance of scientific research. James, using his 15 years of experience in the medical and scientific electronic publishing industry and his Masters of Science from the University of Pennsylvania, did conduct extensive scientific and medical literature review upon which to base his opinion. Exposures to radiofrequency may cause neuropathy. Because it cannot be known who will, when exposed, and who will not, we cannot say that radiofrequency fields can cause neuropathy. It is vital to diminish exposures who Teresa given that neuropathies are frequently seen in patients with Sjogren's Syndrome.

18. Agree, in part. While the Complainants would like the Commission to provide an opt out from the installation of and the removal of any smart meters (e.g., AMR and AMI), they would more specifically want 1) an analog meter with no radiofrequency transmissions at no cost to the Complainants and 2) implementation of an opt-out based on the North Carolina model (Complainants Main Brief, p. 47).

19. Agree, in part. The antinuclear antibodies are used to help inform a physician's diagnosis of a patient. This blood test, along with symptoms, a physical exam and other tests are used to look for autoimmune disease, such as lupus or rheumatoid arthritis and Sjogren's. They are proteins the immune system makes to fight off bacteria, viruses and other germs. The immune system can at times mistake parts of the body for foreign invaders. It releases special antibodies that attack the cells and tissues and can damage joints, skin, muscles and other parts of the body. People with some autoimmune diseases will test positive for ANAs. ANA antibodies indicate that there is a problem with the immune system. Therefore, the ANA are not a concern about the smart meters. What is a concern for Teresa is that her body is already working overtime given the autoimmune disease and further exposures will overwhelm her body further. James and Teresa are diligent in minimizing as many types of exposures as possible and are able to manage her disease at this time.

The Quigleys are concerned about PECO meter because it emits RF radiation and the preponderance of peer-reviewed science indicates that radiofrequency transmissions harm immune system functions (Complainants' Main Brief, pp 17-25).

20. Agree, in part. Harm can happen whether the meter is known or unknown. The Quigleys don't know the kind of cigarettes James's father smoked but they know that they harmed him. The Quigleys would note that the AMR meter was installed in 2001. In 2005, Teresa was diagnosed with Sjogren's Syndrome. Most illnesses which are exposures-related require a latency period before a disease manifests itself (such as cigarette smoke exposure and lung cancer).

21. Agree, in part. The Quigleys made it clear that they did not want a Smart Meter installed yet were threatened by PECO with repeated shut-off notices. PECO also attempted to switch out the meter despite having on file the letters from the Quigleys.

22. Agree, in part. While Teresa's health is indeed impacted by the insults from exposures from many sources, James and Teresa are managing her health. Teresa is able to work full-time, help raise their now 8 year old son, and engage in their son's activities.

23. Agree, in part. Teresa and James have taken steps to reduce exposures to radiofrequency transmissions. However, James and Teresa did not testify that they had gotten rid of their microwave oven. In fact, Teresa testified that the reason they had installed one was because the contractor had suggested that it helps with resale value. Further, at that time, Teresa was not diagnosed with Sjogren's. Regardless, they have not used their microwave oven for cooking but rather the bulk of its use is primarily for heating up the heating pad and they stand far away from it when it is on. Additionally, James and Teresa did not testify that they got rid of the cordless phone because they have never owned a cordless phone. This is by their choice to not ever have purchased, owned or received a cordless phone. This gives cause for concern in that PECO is misconstruing the truth and then citing transcript pages where indeed there is no place that the above would have been stated. The Commission should reprimand PECO for misstating the truth.

While Teresa does own a personal cell phone, she does not own a smart phone. The cell phone for her non-profit work-related use is during the work week. Teresa did not testify that the Quigleys have "eliminated Wifi at her home" because they never installed it. Teresa testified that she purchased a laptop that could accept cabled internet service. Again, the misconstruing the truth should give the Commission pause in accepting PECO's statements. Either PECO is misstating the testimony or the testimony was recorded incorrectly.

24. Agree, in part. Teresa is worried that her osteoporosis could worsen. At the time of the Initial Hearing, Teresa was diagnosed with osteopenia. Since the Initial Hearing, her physician of over 20 years has prescribed Teresa medication to slow bone loss and reduce the risk of broken bones.

Since vitamin D synthesis is a requisite for calcium absorption, and since peer-reviewed literature, especially from a researcher at the Auto-Immunity Research Foundation, has shown that vitamin D absorption is negatively impacted by radiofrequency transmissions, and since calcium absorption is vital for health of bones, then Teresa's risk for worsening osteoporosis is heightened (Complainants' Main Brief, pp 25-28).

25. Agree, in part. The Quigleys are concerned about any smart meter and therefore have requested an analog meter which would not transmit radiofrequency.

26. Disagree. This was incorrectly stated. The Quigleys can pick up 3-4 wifi signals from their home, none of which are theirs. Under the duress of testifying, Teresa confused what her brother-in-law has stated about his condominium where he picked up 20 signals.

27. Disagree, in part. The Quigleys residence is not "a one-story, split-ranch." It is a split-level with three levels. The lot size is 3/10 acre. The neighbors' homes on either side are approximately 40 feet away and neighboring homes behind their home and across the street are approximately one hundred yards and fifty yards, respectively. Again, the Quigleys are concerned with PECO's interpretation because at no time would the Quigleys have testified that they lived in a one-story ranch.

28. Agree. Teresa increasingly uses her home office to sleep, both for naps and at nighttime.

29. Agree, in part. The Quigleys want an analog meter, with no radiofrequency transmissions. Further, Bathgate found that moving the meter does not eliminate the concerns with radiofrequency transmissions. The Quigleys have been told, as per PECO witness, Uber, that relocating the meter board would be at the Quigley's expense.

30. Agree, in part. Teresa sits far away from the router and also is out of the office for about *half of her work week, traveling in her car to schools and other sites.*

31. Neither agree nor disagree. The Quigleys do not know Uber and have to take PECO's word for it. It was established that a Customer Field Operations supervisor cannot have knowledge on human health.

32. Neither agree nor disagree. The Quigleys cannot know when PECO installed the AMR meter.
33. Agree, in part. PECO has not installed the electric AMI meter because the Quigleys filed a formal complaint. PECO did attempt, according to Uber's written testimony and records to install the electric AMI despite having on file in written and telephone records the Quigleys statement on not installing one.
34. Neither agree nor disagree.
35. Agree.
36. Neither agree nor disagree.
37. Neither agree nor disagree. The Quigleys were not informed that Grid One would be installing the meter because the Quigleys believed that their letters and calls and physician's letter would be recognized, respected and accepted.
38. Agree.
39. Agree.
40. Neither agree nor disagree.
41. Agree, in part. The Quigleys had already submitted and PECO had already received the physician's letter.
42. Neither agree nor disagree.
43. Neither agree nor disagree.
44. Disagree, in part. While the Quigleys do not know when the gas AMI module was installed – since they were not notified - this argument cannot stand in whole because the Quigley's did file written and telephone communications directly with PECO about not wanting any smart meter installed. At no time did PECO inform the Quigleys that in order to put a stop to the menacing shut-off notices or to ensure that a smart meter of any kind would not be installed, the Quigleys would need to file a formal complaint with the PA PUC. Further, when questioned,

Uber was evasive and not able to explain coherently why PECO had installed a gas module against the expressed firm objections by the Quigleys. Uber did not explain why PECO attempted to install the electric meter – albeit unsuccessfully – against the same firmly expressed requirements of the Quigleys. The gas module looks exactly the same as the previous meter and so it would be impossible for the Quigleys to know that the gas meter’s module had been installed. Both gas and electric smart meters should not have been installed or attempted to be installed, yet that is exactly what PECO has done, according to Uber’s testimony. In no civilized society does an industry impose their will on citizens, such as PECO is doing and misconstruing the truth.

45. Agree.

46. Neither agree nor disagree.

47. Neither agree nor disagree.

48. Agree.

49. Agree, in part. The Quigleys filed the formal complaint on August 1, 2017 because they were not getting resolution or accommodation from interactions with PECO. They were told that the only way to stop the shut-off of their electricity, despite having a documented illness and a young child, was to file a formal complaint.

50. Neither agree nor disagree.

51. Agree, in part. Pritchard cannot have expertise in the issue at hand, which is human health or the interaction between radiofrequencies and human health. Further, as a paid employee of PECO, his views are prejudicial.

52. Neither agree nor disagree.

53. Neither agree nor disagree.

54. Neither agree nor disagree. The Quigleys cannot know the actual transmission times or amounts. They are not aware of any unbiased third-party testing (paid for and conducted by a third party) to corroborate Pritchard’s claims.

55. Neither agree nor disagree.

56. Neither agree nor disagree. The Quigleys cannot know the actual transmission times or amounts. They are not aware of any unbiased third-party testing (paid for and conducted by a third party) to corroborate Pritchard's claims. Apparently, PECO is not concerned that the Zigbee makes 2,880 transmissions per day (Complainants' Main Brief, pp 34-36).

57. Neither agree nor disagree. The Quigleys cannot know the actual transmission times or amounts. They are not aware of any unbiased third-party testing (paid for and conducted by a third party) to corroborate Pritchard's claims.

58. Neither agree nor disagree.

59. Neither agree nor disagree.

60. Disagree, in part. PECO has made it clear in testimony by Uber that to relocate the meter board would be at the Quigleys expense. The cost of this is prohibitive for a customer, but not for an industry behemoth. An accommodation implies that the customer's needs are considered and applied. No such effort by PECO is evident. The Quigleys are seeking to have an analog meter installed. PECO's "accommodation" places the burden of protecting the Quigleys' immune system on the Quigleys.

61. Neither agree nor disagree. This is irrelevant. Any commercial competitor would have to operate under the same implementation order. This is obfuscation by PECO.

62. Disagree. PECO is required by federal and state mandates to provide safe and reasonable accommodations to its customers. Reasonable accommodations imply that the customer's needs are considered and applied. No such effort by PECO is evident. On the contrary, threatening notices were issued to the Quigleys on several occasions as a means to enforce PECO's wishes. How can PECO call this an accommodation when in fact by the very nature of these threats, the cost-bearing incurred by the customer for moving the meter board, and the denial of the installation of an analog meter are punitive. PECO never accommodated the Quigleys. An accommodation would have included an assessment of the Quigleys's needs gained by discussing their needs with them. PECO ignored our stated needs.

In any other industry (such as buying a car), the Quigleys could choose to walk away from doing business with a bullying corporation. That is not so with electric distribution. PECO is the only choice and they are abusing that monopoly position by not accommodating the needs of customers. Imagine a car company or a manufacturer of washing machines trying to offer only three models – none of which have any options. They would be laughed at. Unfortunately, citizens cannot laugh because currently, according to the PUC and PECO “reasonable accommodations” includes forcing a different smart meter on them.

63. Disagree. PECO has made no accommodations in respect of Teresa’s autoimmune disease. Stress can exacerbate the Sjogren’s Syndrome and should be avoided. The threats, Initial Hearing, deadlines for Main Briefs and Reply Briefs intensify her stress levels. PECO did not choose the design of the smart meter as an accommodation to their customers, the citizens. PECO’s claim is dishonest and lamentable.

64. Disagree. Notwithstanding the Quigleys right to not opt-in to having an AMI meter, none of these meters proposed by PECO are an “accommodation to customers who have concerns about radiofrequency transmissions.” All three utilize radiofrequency transmissions. Regardless of PECO’s claims re: transmission durations, Marshall indicated that radiofrequency transmissions as short as pico-seconds (trillionths of a second) impede vitamin D syntheses. Pico-seconds are far shorter than PECO’s claimed radiofrequency transmission duration (Complainants Exhibit B-2, p. 134).

These are no accommodations because PECO chose without any consult from the Quigleys or any other complainant with whom the Quigleys are familiar.

PECO claims the Quigleys were informed in February 2017. The Quigleys were informed three days before the Initial Hearing. PECO counsel Lee sent a letter three days prior to the Initial Hearing with a flyer that indicates that the new smart meter the Quigleys can choose is “now” being offered. The flyer clearly states that this is “now” being offered in April 2018.

65. Disagree. PECO did not provide any evidence to support this claim. The meter socket would not provide shielding unless it was designed, built and tested to provide shielding. PECO has provided no evidence to support this claim.

Walls do NOT provide shielding, according to any peer-reviewed published research, unless they are designed, built and tested or retrofitted and tested to provide shielding. No common homes are built in this way. Pritchard's claim regarding walls is false. Pritchard was not recognized as an expert of electromagnetic shielding and should not be making claims regarding it.

Further, for the Zigbee radios to "pair" with devices inside the home, the Zigbee must transmit into the home...2,880 times per day. Pritchard's testimony on this matter calls into question his truthfulness or his expertise. If he knew the Zigbee transmits purposefully into the home, his testimony related to the meter socket and walls providing shielding was untruthful.

Published research does indicate the radiofrequency transmissions not only penetrate walls, but can then refract within interior spaces, causing even more exposure (Complainants' Exhibit J-2, pp 27-31).

66. Neither agree nor disagree. Given PECO's penchant for making unsubstantiated claims, it is difficult to trust anything they state.

67. Neither agree nor disagree.

68. Neither agree nor disagree.

69. Disagree, in part. While Davis holds a PhD in physics, he is not an expert in chemistry. His research interests, according to the University of Maryland's website, are "Free space optical and directional RF communication systems, atmospheric turbulence, advanced surveillance systems, plasmonics, chemical and biological sensors, interferometry, optical systems, bioelectromagnetics, RF dosimetry." Further, he does not have expertise in human health, the immune system, vitamin D synthesis, osteoporosis, or the law, which are key points in the proceedings. He has never treated patients of any kind.

70. Neither agree nor disagree.

71. Disagree. The FCC's MPE's do not avoid human health effects from radiofrequency fields or transmissions. "Exposures below FCC's MPE's do not cause health effects," is a gross

overstatement. Exposures below the MPE levels can and do cause health effects (Complainants' Main Brief, pp 46-47 and Exhibit M-5, pp 1-4).

Today's public exposure limits for telecommunications are based on the presumption that heating of tissue (for radiofrequency) or induced electric currents in the body (for ELF) are the only concerns when living organisms are exposed to RF. In the last few decades, it has been established beyond any reasonable doubt that bioeffects and some adverse health effects occur at far lower levels of RF and ELF exposure where no heating (or induced currents) occurs at all. Some effects are shown to occur at several hundred thousand times below the existing public safety limits where heating is an impossibility.

The statement by Davis indicates a lack of understanding on his part of the continuum of risk to any exposure. If women in childbearing years cannot be used in FCC studies to establish safety levels this indicates that there are vulnerable populations.

72. Disagree. It is clear in the research that damage to DNA does occur (Complainants' Main Brief, pp 46-47 and Exhibit M-5, pp 1-4).

73. Disagree. PECO has not provided any unbiased third-party data that indicates the specifics of these radiofrequency transmissions. The FCC's MPEs are insufficient to protect human health (Complainants' Main Brief, pp 46-47 and Exhibit M-5, pp 1-4).

Effects occur at non-thermal or low-intensity exposure levels thousands of times below the levels that federal agencies say should keep the public safe. Davis testified that while induction testing with other sources (e.g., light, pressure, etc.) can be used for testing, he only uses high heat to demonstrate if there are any cause and effect measures. In other words, biological impacts are noted in the scientific literature from exposures other than heat.

Chronic low-level exposures can have impacts to health specifically years later (Complainants' Main Brief, p 24).

74. Disagree. PECO has not provided any unbiased third-party data that indicates the specifics of these radiofrequency transmissions.

75. Disagree. The ICNIRP is an industry supportive organization, not a citizen supportive organization. There is substantial scientific community support for the idea that the ICNIRP is flawed in their understanding of the harm from radiofrequency transmissions (Complainants' Exhibits M-7, pp 2-9 and M-1, section 4).

76. Disagree, in part. None of the sources listed by PECO are in close proximity to Teresa's office/bedroom. The cell phone strength of signals is consistently very low near the Quigley's home and property, indicating a weak signal from the towers. As stated previously, The Quigleys do not use their cell phones frequently, and they rarely use their microwave oven.

77. Disagree. Davis made that claim as a paid PECO witness and without taking any measurements of any kind. It is completely irresponsible in the scientific community for a scientist to make a definitive statement having done no actual testing.

78. Disagree. There is no unbiased third-party corroboration of PECO's claims about their meters' radiofrequency transmissions. Additionally, Bathgate found that PECO's AMI meters were not operating as they were purported to by PECO (Complainants' Main Brief, pp 11-13).

79. Disagree. There is substantial reliable scientific basis to conclude that radiofrequency fields, such as those from PECO's AMI and AMR meters, are capable of adverse biological effects and human health harm (Complainants' Main Brief, pp 9-10, 13, 19-29).

80. Disagree. Davis made this estimation without having any specific knowledge of her cellphone usage or practices. Further, he again has made a statement having done no actual testing. The Smart Meter would be placed just outside her home office which she uses as a bedroom, at times. This involuntary exposure would be happening during the middle of the night when sleep occurs and when the body and brain must rest.

81. Disagree. Clearly, the preponderance of peer-reviewed scientific literature finds that adverse biological effects are caused by radiofrequency transmissions. For Davis to make such a claim indicates extraordinary ignorance of the peer-reviewed literature. No one can make that claim. There is a continuum of risk with all exposures.

82. Disagree. The preponderance of peer-reviewed scientific literature on the issue on genotoxicity disagrees with Davis's statement. Whether it is proton energy or some other aspect of the radiofrequency transmission and field and whether the genotoxicity of telomere repair or some other genotoxic issue, the preponderance of the current scientific literature indicates genetic harm (Complainants' Main Brief, pp 37-38).

If Davis only listens to FCC and ICNIRP, then he will only understand the "consensus" of industry sponsored "science" and not the actual general consensus of scientists. The preponderance of scientific studies conducted and published in peer-reviewed journals, especially since 2007, have found biological harm (Complainants' Main Brief, pp 37-38, 46-47). Davis is mistaken in his view of the "general consensus."

83. Agree, in part. Israel stated that he graduated from medical school in 1974. He was unable to recall the oath that all medical students take upon graduation, "First, do no harm."

84. Disagree, in part. His research lies, as per the Dartmouth website, on tumors. The Dartmouth website made no mention of radiofrequencies and electromagnetic fields and health.

85. Disagree. Israel does not examine patients and has not treated any patients with Sjogren's. His minimal literature review did not establish that there was no relationship between exposures and Teresa's health. Israel, during his testimony, was unable to recall any articles that he claimed that he reviewed (Complainants' Main Brief, pp 30-33).

86. Disagree. Israel was short on expertise. In fact, he showed no expertise when asked to demonstrate his knowledge on the articles he purported to have reviewed (Complainants' Main Brief, pp 30-33).

Summary of Argument

After a full, two-day Initial Hearing and the submission of Main Briefs by both parties, the Complainants (Quigleys) have proven beyond a reasonable doubt that PECO's AMI electric meter and any and all radiofrequency transmitting meters can and therefore will cause harm to the Quigleys' health, especially Teresa's.

PECO's failure to provide substantial or persuasive evidence, especially including the inadequate performance of their expert witnesses has left them without the ability to claim that their radiofrequency meters are a safe and reasonable service for someone with a compromised immune system. This subjects Teresa to an unreasonable disadvantage, according to PA Code Title 66, Chapter 15, subchapter A, sections 1501 and 1502.

PECO has the responsibility, according to PA Code to provide safe and reasonable services with appropriate accommodations, and the Quigleys demonstrated that PECO is not providing safe and reasonable service - through a preponderance of the evidence - with any radiofrequency producing meter.

Vitally, PECO and the PUC have failed to interpret Act 129 lawfully, either by written law or the intent of the law. The PUC Court should therefore acknowledge the PUC interpretation of Act 129 was unlawful and that their Implementation Order is rendered Ultra Vires.

The Quigleys ask the Court to rule that the Quigley's deserve to have analog-only meters installed on their home so that they are safe from the harm that PECO's proposed meters will cause them.

Argument

I. Burden of Proof: PECO bears the burden to adhere to PA Code, Title 66, Chapter 15, Subchapter A, Sections 1501 and 1502.

Section 1501:

"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."

Section 1502:

"No public utility shall, as to service...subject any person...to any unreasonable prejudice or disadvantage."

PECO bears the burden to prove that they are providing “safe and reasonable” service to its customers. The Quigleys have demonstrated that PECO cannot reasonably make this claim regarding their radiofrequency meters’ impact on Teresa’s health. PECO’s meters are not only capable but are expected to cause immune system harm to Teresa based on the preponderance of peer-reviewed research. The Quigleys provided ample evidence of harm to Teresa’s immune system from radiofrequency transmissions.

II. Complainants’ Testimony: Clearly, the Complainants demonstrated that the preponderance of peer-reviewed research from actual experts who study the impact of radiofrequency transmissions and human health demonstrate harm to the immune system. The Quigleys have proven beyond a reasonable doubt that a person with a compromised immune system will have an elevated risk of harm from any radiofrequency transmitting meter that PECO proposes to provide. The Quigleys’ testimony and exhibits do demonstrate that PECO’s AM meters, as well as the current AMR meter, do and will cause harm to Teresa’s Health (Complainants’ Main Brief, pp 9-10, 13, 19-29).

PECO unsurprisingly missed the main area of expertise that the Quigleys have regarding this proceeding. That is, the Quigleys are expert at managing a complex disease of the immune system, including using Teresa’s doctor’s guidance to mitigate exposures. The Quigleys know that all exposures, whether biological, chemical or electromagnetic, increase the burden on Teresa’s immune system. They know this through practicality – living life and dealing with the exposures and their aftermath. They also know this through the overwhelming amount of peer-reviewed, published scientific studies, especially those of the most recent decade or more.

It can also be noted that James was the only witness of the Hearing who acknowledged the comprehensiveness of the scientific literature on the subject of radiofrequency transmissions and human health; acknowledging that while there were studies which showed no discernable impact, there were many more studies which do show clear impact.

It is unsurprising that PECO attempts to denigrate the Quigleys’ expertise, given the dearth and, in some cases, dishonesty of expertise that their witnesses showed.

The Quigleys, as intelligent citizens who care about their democratic republic are also experts at being citizens. They can read and easily interpret laws when clearly written, such as Act 129. The Quigleys' testimony clearly demonstrates that the PUC is violating Act 129 through its Implementation Order. Further, PECO is violating Act 129 through their operational efforts pursuant to the PUC's Implementation Order. If the Legislature had intended a universal mandate, the Legislature would not have included the language regarding customer's opting-in and new construction.

III. **PECO Testimony:** PECO's expert witnesses have no human health expertise. PECO did not provide sufficient testimony to show that their radiofrequency transmitting meters will not and do not cause harm to Teresa's health nor did they prove that they are compliant with PA Code Title 66, Chapter 15, subchapter A, sections 1501 and 1502.

A. **Davis:** As previously, noted, in paragraph 69, Davis does not have expertise in human health, the immune system, vitamin D synthesis, osteoporosis, or the law, which are key points in the proceedings. He has never treated patients of any kind.

- Disagree. As previously noted, the FCC MPEs are old and ineffective at protecting human health (Complainants' Main Brief, pp 36-39, 46-47). What sane and just citizen would believe that the Federal *Communications* Commission has any expertise or credibility on human health?
- Disagree. Davis testified that the peak exposure was calculated at 40 times lower, rather than millions of times lower as stated by PECO. Neither are there any unbiased third-party studies to corroborate this claim.
- Disagree, in part. The Quigleys work diligently to reduce exposures from all EMF and RF sources to protect Teresa from an assault on her already overworked immune system and illnesses. None of the technologies mentioned are present or in daily use in the Quigleys home when Teresa is present or any time at night.
- Disagree, in part. As previously mentioned, Davis did not do any actual testing to make this claim. This is irresponsible in the scientific community.

- Neither Agree nor Disagree. As stated previously, there are no known unbiased third-party sources to corroborate this claim by PECO. Regardless, radio frequency transmissions for exceedingly small durations have been shown to impact vitamin D synthesis.
- Disagree. As previously stated, Davis did not do any actual testing to estimate this claim. Neither did Davis enter his algorithm into testimony. This claim is unsubstantiated.
- Disagree, in part. 1) PECO's AMI meters may comply with FCC limits; however, there is no known unbiased third-party testing to corroborate this claim. Neither are the FCC MPE's sufficient to protect Teresa's already compromised health. 2) As stated previously, there is substantial, reliable, credible, scientific basis to conclude that radiofrequency transmissions, including those from PECO's radiofrequency transmitting meters, cause adverse biological effects, especially including to the immune system and to vitamin D synthesis with the direct result of less calcium absorption and greater risk of osteoporosis, specifically bone loss and easily broken bones (Complainants' Main Brief, pp 19-29).

Davis attempted to claim expertise in health matters; however, the Quigleys clearly demonstrated through his verbal testimony and the Main and Reply Briefs that Davis was poorly informed about the preponderance of scientific evidence that indicates harm to health.

B. Israel: Disagree, in part. As previously mentioned, Israel does not treat, nor has he treated patients with Sjogren's Syndrome or other autoimmune diseases (Complainants' Main Brief, pp 30-33). As previously stated and in contrast to his claims of expertise, in the areas of radiofrequencies (which is a concept in physics, not in medicine) and electromagnetic fields and health, his area of focus - according to his apparently former employer - is in tumors.

In contrast to Israel's claim of conducting an exhaustive (analyzing and reanalyzing every study until all salient points are remembered by him) literature search, it is clear from cross-examination that at the very best, Israel conducted a cursory search. He found a few articles (on rates and mice), which were not focused on the immune system, that justified his position and claimed that as expertise.

As mentioned previously, there is substantial peer-reviewed research – in fact, the preponderance of recent research – to indicate that radiofrequency transmissions impact the

immune system, vitamin D synthesis and subsequently deficiency (at even the shortest durations), and further risk of osteoporosis as well as the other health concerns for Teresa.

Israel overlooked the vast majority of peer-reviewed research in making his conclusion. As a paid PECO witness, who could not admit that he would not be a paid PECO witness unless his views supported PECO's, the Quigleys contend that Israel's testimony was inadequate to demonstrate safety of PECO's radiofrequency meters.

PECO's fourth "expert" Israel was long on credentials and short on expertise. He does not and has not treated any patients with Sjogren's Syndrome or any autoimmune diseases. Further, he does not treat any patients at all. Though Israel claims to have done an exhaustive literature search, on cross-examination the Quigley's clearly demonstrated that he did not in fact do even a poor literature review. Israel's complete inability to name any study he claims to have analyzed and reanalyzed indicates his lack of expertise.

C. Reasonable Accommodations: PECO has **not** provided reasonable accommodations to the Quigleys. Notwithstanding the PUC's misinterpretation of Act 129, and PECO's operational violation of the same, PECO is also violating PA Code, Title 66, Chapter 15, Subchapter A, Sections 1501 and 1502.

Section 1501:

"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."

Section 1502:

"No public utility shall, as to service...subject ay person...to any unreasonable prejudice or disadvantage."

PECO bares the responsibility to make the necessary accommodations for the safety of the Quigleys. Otherwise, PECO is subjecting the Quigleys to an unreasonable prejudice and disadvantage where Teresa's health, and specifically her immune system and vitamin D or osteoporosis health is concerned.

As previously stated, Pritchard does not have any expertise in the intersection of human health and radiofrequency transmissions and cannot therefore provide any insight into acceptable forms of accommodations for the Quigleys.

Conclusions

PECO cannot serve their customers well if they are causing harm to their customers' immune systems as the preponderance of peer-reviewed scientific and medical research indicates occurs. The Quigleys have proven that harm to Teresa's health will be expected to occur from the current AMR meter and the three meters PECO is proposing to replace it with.

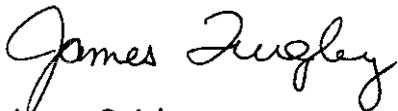
PECO provided four "expert" witnesses with no expertise in the law (Act 129) or in the intersection of radiofrequency transmissions and human health. The Quigleys have proven through cross-examination of PECO's "expert" witnesses, as well as the Main and Reply Briefs that PECO's experts failed to show expertise that would lead to the conclusion that PECO is providing a safe service to the Quigleys. If PECO's "expert" witnesses fail to show expertise, perhaps even failing to display honestly, why should anyone, especially the Complainants, trust PECO's claims on the safety of their radiofrequency meters for Teresa's (or anyone's) health?

The Quigley's have proven that the PUC interpreted act 129 unlawfully, and that PECO is violating the law as written. The Quigleys have chosen not to opt-in to the AMI meter.

Therefore, the Court should find for the Quigleys and require PECO to install an analog-only meter with no radiofrequency transmissions to provide a true accommodation.

Further, the Court should find the PUCs Implementation Order of Act 129 Ultra Vires and restore Act 129 as the enforceable law, making Smart Meters an opt in, if desired (except in new construction).

Respectfully submitted,


James Quigley


Teresa Méndez-Quigley

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BEFORE THE
PA PUBLIC UTILITY COMMISSION

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

James Quigley & Teresa Mendez-Quigley

v.

Docket No. C-2017-2617558

PECO Energy Company

CERTIFICATE OF SERVICE

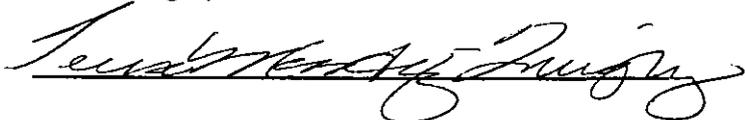
We, James Quigley and Teresa Méndez-Quigley, hereby certify that we have this day served a copy of Reply Brief via US mail to:

Ward L. Smith, Esquire
PECO Energy Company
2301 Market Street, S23-1
Philadelphia, PA 19101-8699

Dated at Philadelphia, PA, September 7, 2018



James Quigley



Teresa Méndez-Quigley

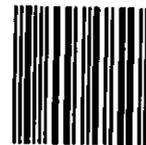
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