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September 6, 2017

VIA E-FILING

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

**RE: Janice DeNito Branagh v. PECO Energy Company
Docket No. C-2016-2576738**

Dear Ms. Chiavetta:

Attached please find the Public Version of PECO Energy Company's Main Brief in regard to the above-referenced matter to be posted on the Commission's website. A copy of the Confidential Version of this Brief will be forwarded separately by U.S. mail for non-public filing.

A Certificate of Service evidencing that service is attached for filing.

Very truly yours,



Ward L. Smith
Counsel for PECO Energy Company

WS/ab
Enclosure

cc: Honorable Darlene D. Heep, ALJ
Janice DeNito Branagh

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Janice DeNito Branagh

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Docket No. C-2016-2576738

v.

PECO Energy Company

CERTIFICATE OF SERVICE

I, Ward L. Smith, hereby certify that I have this day served a copy of PECO Energy Company's Main Brief via e-mail to:

Janice DeNito Branagh
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Dated at Philadelphia, Pennsylvania, September 6, 2017



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**Main Brief of PECO Energy Company
PUBLIC VERSION**

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Introduction

This case involves a claim by Janice Denito Branagh (“Ms. Branagh” or the “Complainant”) that if PECO Energy Company (“PECO”) installs an Advanced Metering Installation (“AMI”) electric meter or gas module at her residence, radiofrequency transmissions from the electric AMI meter or gas AMI module will cause, contribute to, or exacerbate adverse health conditions. She also claims that PECO inappropriately installed an AMI gas module in the fall of 2016, even though it knew of her opposition to such installation.

At the hearing Ms. Branagh testified as to both claims. As to the first claim, she did not provide any medical records or any supporting testimony from a physician or expert witness. For its part, PECO presented extensive testimony demonstrating that its electric AMI meter and gas AMI module will not cause Ms. Branagh to suffer adverse health effects.

As to Ms. Branagh’s claim regarding installation of the gas AMI module, the evidence demonstrates that PECO provided reasonable utility service when it installed a gas AMI module at the Branagh residence.

Background and Procedural History

On November 16, 2016, Ms. Branagh filed a formal Complaint with the Pennsylvania Public Utility Commission stating that she does not want PECO to install an electric AMI meter because, she says, she has health conditions that she believes will be aggravated by radiofrequency transmissions from the electric AMI meter. The Complainant additionally alleged that PECO installed an AMI module on her gas meter against her wishes, and that she believes the gas AMI module will also harm her health.

On December 7, 2016, PECO filed an Answer and Preliminary Objection to the Complainant's formal complaint stating that the company is required to install the electric AMI meter pursuant to Act 129 and the statute does not permit the Complainant to "opt out" of meter installation.

On February 2, 2017, a Hearing Notice was issued scheduling the matter for an in-person hearing before Administrative Law Judges Christopher P. Pell and Darlene D. Heep on April 4, 2017. A corrected hearing notice was issued the same day, scheduling the hearing for April 4, 2017 and April 5, 2017.

On February 7, 2017, a Prehearing Order was issued that directed the parties to exchange fact witness and expert reports, exhibits and discovery on a noted schedule prior to the hearing.

On March 1, 2017, a Hearing Cancellation was issued cancelling the April 4 and April 5 hearing and rescheduling the hearing to take place on June 6, 2017 and June 7, 2017.

On March 1, 2017, ALJ Pell and ALJ Heep issued a Ruling denying PECO's Preliminary Objection. The ALJs ordered that a hearing would be scheduled to address whether, in light of the Complainant's health concerns, installation of an AMI meter or module constitutes unreasonable utility service in violation of Section 1501 of the Public Utility Code.

On March 2, 2017, a Prehearing Order was issued that directed the parties to exchange fact witness and expert reports, exhibits and discovery on a newly-noted schedule prior to the hearing.

On March 24, 2017, the Commission issued a notice advising that ALJ Heep would be the sole presiding officer.

On April 21, 2017, PECO served the Complainant with PECO's Interrogatories and Request for Production of Documents, Set 1.

On April 25, 2017, PECO served the reports of PECO's witnesses: PECO employees Bryan Uber and Glenn Pritchard, and two third-party experts, the physicist Dr. Christopher C. Davis, and Dr. Mark Israel, M.D. Ms. Branagh did not serve any expert or fact witness reports.

On April 30, 2017, the Complainant objected to PECO's Interrogatories and Request for Production of Documents, Set 1, Interrogatory 1, stating that she did not have time to respond to PECO's discovery.

On May 28, 2017, the Complainant and PECO exchanged copies of their hearing exhibits.

A hearing was held in this matter on June 6, 2017. The Complainant represented herself *pro se*. PECO was represented by Ward Smith, Esquire, Shawane Lee, Esquire and Thomas Watson, Esquire who presented the testimony of PECO Supervisor, Bryan Uber; Principal Engineer, Advanced Grid Operations, Glenn Pritchard; Professor Christopher Davis, Ph.D. in Physics and Mark Israel, M.D. The hearing was completed in one day.

On August 8, 2017, ALJ Heep issued a Briefing Order, requiring main briefs due on September 6, 2017 and reply briefs due on October 4, 2017.

Proposed Findings of Fact

1. The Complainant, Janice Denito Branagh, is an environmental health specialist. Tr. 10-11, 47.
2. The Respondent is PECO Energy Company. Tr. 6.
3. Complainant is currently a PECO electric utility service customer and natural gas utility service customer receiving service at 117 Fairview Avenue, Norristown, PA, 19403. Tr. 11, Exh. BU-13.
4. The Complainant lives in a single-family cape-style house, with two stories above grade and a basement. Tr. 11-12. The residence is located on approximately ½ acre of land. Tr. 12. Complainant estimated that her home is separated from the neighbors' homes by approximately 25-30 feet. Tr. 12.
5. Complainant's residence has an electric Automatic Meter Reader ("AMR") meter installed on the front of the house on the side near the driveway, to the right of the front door. Tr. 12-13, 54. Complainant's family does not use the front door; they use the side door. Tr. 54.
6. To date, PECO has not installed an electric AMI meter at the Complainant's home. Tr. 11-12, 63.
7. PECO installed a gas AMI module at the Complainant's home on September 28, 2016. Tr. 11-12, 63. The gas AMI module is located on the front of the house to the left of the front door. Tr. 13, 54.

BEGIN CONFIDENTIAL MATERIAL

END CONFIDENTIAL MATERIAL

16. Complainant has unplugged her microwave oven and leaves the room if other family members use it. She uses a wired (not wireless) computer. Other than that, she has not taken any steps to mitigate exposure to radiofrequency fields in her home. Tr. 42.

17. Ms. Branagh has a Samsung 2.0 cell phone, which she uses for short calls and texting. When she uses the cell phone for a call, she will usually set it on a table and use the speaker. Tr. 42-44. Ms. Branagh estimates that she texts between zero and six times a day. Tr. 45-46. PECO asked Mr. Branagh, in discovery, for phone records that would show her actual amount of usage for both calls and texts, but Ms. Branagh was too busy to obtain those records. Tr. 46.

18. Ms. Branagh's husband has a cell phone which he uses for phone calls, but Ms. Branagh "doesn't get near his cell phone." Tr. 47.

19. Ms. Branagh's job entails work in an office and in the field; at both locations people near her use cell phones. Tr. 48-49.

20. Ms. Branagh has not been treated by a physician for electrical hypersensitivity. Tr. 49-50.

21. Ms. Branagh was offered the accommodation of relocating her electric meter, but she rejected that alternative because she does not believe it addresses her concerns. Tr. 52.

22. Ms. Branagh seeks an accommodation of keeping her electric AMR meter, and having the gas AMI module removed, until she has the opportunity to work with local legislators to change the law requiring installation of AMI meters. Tr. 54. She referred to this as seeking an opt-out clause. Tr. 52.

23. When PECO originally contacted Ms. Branagh regarding electric AMI meter installation, she requested that PECO postpone installing the electric AMI meter at her residence as long as possible. Tr. 55.

24. Ms. Branagh is concerned that the electric AMI meter will “seek and pulse and get information every few seconds and it’s all day long . . . it would be going 24/7.” Tr. 56.

25. Bryan Uber is a supervisor in PECO’s Customer Field Operations Department. As part of his duties, he works on PECO’s AMI installation project. Tr. 57-58.

26. PECO’s AMI deployment project has been finalized and transitioned to “residual deployment” which involves installation of approximately 1500 remaining AMI meters. Tr. 59-60.

27. As part of the finalization of AMI deployment project, PECO’s AMR network was terminated in April 2017. PECO therefore cannot receive radiofrequency transmissions from the AMR meters, and bills for all locations that continue to have AMR meters are being issued on an estimated basis. Tr. 60, 85-86, 98. The gas AMR system used the same infrastructure as the electric AMR system, and PECO therefore also does not have the ability to receive readings from gas AMR modules. Tr. 102.

28. Complainant received multiple written notices that PECO planned to install an electric AMI meter at her residence. Tr. 14. The first such notice was a 45-day notice of pending AMI installation, sent in June 2012. Tr. 64. The next notice was a 21-day letter in July 2012. Tr. 64-65.

29. On July 23, 2012, Ms. Branagh contacted PECO and expressed concern regarding electric AMI meters and health. PECO therefore designated the residence as a “health refusal” and postponed installation of the electric AMI meter, taking no further action for the Branagh residence until 2015. Tr. 65-66.

30. On August 11, 2015, PECO sent the Branaghs a letter stating that it would install a gas AMI module. Tr. 66, Exh. BU-4. On August 26, 2015, Ms. Branagh called to express concern about the gas AMI module. Tr. 66.

31. On January 22, 2016, PECO reinitiated communications with respect to installation of both the electric AMI meter and the gas AMI module by sending a re-engagement letter to the Branaghs. Tr. 67-68; Exh. BU-6.

32. On February 1, 2017, Ms. Branagh called PECO to express concern about installation of both the electric AMI meter and the gas AMI module and requested a further discussion with Ms. Brenda Eison, who was since retired but at that time was leading PECO's customer communication efforts regarding AMI installation. Tr. 61, 68.

33. On February 5, 2016, Ms. Eison returned Ms. Branagh's call and left a message requesting a callback. Tr. 68. Ms. Branagh returned the call and stated she would send a doctor's note that would explain her health concerns. Tr. 68.

34. On April 5, 2016, PECO received a note from Ms. Branagh's doctor stating that she has chemical sensitivity. Tr. 69; Exh. BU-8. The letter does not mention radio frequency transmissions. Tr. 78. In fact, the letter does not mention PECO, electric or gas utility service, AMI meters, smart meters, radiofrequency transmissions, or electrical hypersensitivity; nor does it state that any of Ms. Branagh's health conditions were caused by, contributed to, or exacerbated by exposure to radiofrequency fields or AMI meters, or that future exposure to radiofrequency fields or AMI meters would cause, contribute to, or exacerbate any health condition. Exh. BU-8.

35. On September 20, 2016, PECO sent a re-engagement letter to inform Ms. Branagh that it would proceed with installation of gas and electric AMI technology at her residence. Tr. 88, 91, Exh. BU-9.

36. On September 27, 2016 at approximately 10:00 p.m., Ms. Branagh contacted Ms. Eison by email and reiterated her concerns regarding AMI installation. Tr. 72, Exh. BU-10.

37. On September 28, 2016, PECO installed a gas AMI module on its gas meter at the Branagh residence. Tr. 72, 87. PECO left a door hanger with information regarding the gas AMI module installation. Tr. 79, 90.

38. On September 30, 2016, PECO sent Ms. Branagh a letter discussing installation of the gas AMI module and the electric AMI meter. Tr. 89.
39. On October 4, 2016, PECO sent a 10-day notice indicating that if it was not given access to install the electric AMI meter, it would terminate service. Tr. 74.
40. On October 5, 2016, Ms. Branagh contacted Ms. Eison and reiterated her concerns regarding AMI meter installation. Tr. 73.
41. On October 14, 2016, Ms. Branagh called PECO, stated that she had received the 10-day notice, and explained that she did not want the electric AMI meter installed. Tr. 75.
42. On October 17, 2016, Ms. Branagh filed informal complaint 003485352 with the Commission's Bureau of Consumer Services disputing the installation of the electric AMI meter due to claimed medical reasons at her home, and requesting that the gas AMI module be removed for the same reasons. Tr. 76; Exh. BU-13.
43. On October 18, 2016, PECO contacted Ms. Branagh to acknowledge receipt of the PUC informal complaint. Tr. 76.
44. On November 4, 2016, the Bureau of Consumer Services dismissed and verbally closed Ms. Branagh's informal complaint. Tr. 77; Exh. BU-14.
45. On November 16, 2016, Ms. Branagh filed the formal complaint that initiated this proceeding.
46. On December 7, 2016, PECO contacted Ms. Branagh to discuss relocation of the electric AMI meter – that is, PECO offered to install the electric AMI meter at a location more distant from her home. Ms. Branagh refused, stating that distance would make no difference to her concerns. Tr. 77.

47. On February 21, 2017, PECO again contacted Ms. Branagh to discuss relocation of the electric AMI meter. Ms. Branagh again refused this alternative. Tr. 78.

48. Glenn Pritchard is the manager of PECO's Advanced Grid Operations & Technology Group. Tr. 95. In that position, he was the principal engineer in charge of design and selection of PECO's AMI system. Tr. 95-96.

49. The AMR system was previously used by PECO to read AMR based meters. Tr. 98, PECO Exh. GP-1.

50. PECO began installing the AMR system in 2000. Tr. 98; PECO Exh. GP-1.

51. In the AMR system, electric meters transmitted data once every five minutes throughout the day to a device called a MicroCell Controller. Tr. 99, PECO Exh. GP-1.

52. Communication in the AMR system was one-way, from the meter to the PECO backbone system. Tr. 99.

53. Once the customer's AMR data was received by PECO's internal applications, the information was integrated with PECO's Meter Data Management System (MDMS), which data was then ultimately used to produce customer bills. PECO Exh. GP-1.

54. The AMR system operated at a frequency known as the industrial, scientific and medical, or "ISM" band. Tr. 100.

55. All PECO customers, including the Complainant, had an AMR meter. Tr. 100-01.

56. PECO is currently using an AMI Advanced Meter Platform to read meters. PECO Exh. GP-2.

57. PECO installed its electric AMI meters in response to Pennsylvania Act 129. Tr. 102.

58. PECO began its compliance with Act 129 by filing an AMI implementation plan with the Commission. In that filing, PECO stated that it would follow an aggressive timetable for installing AMI electric meters in its service territory in order to create efficiencies in the installation process. Tr. 103-04.

59. PECO has completed deployment of over 1.7 million electric AMI meters and over 530,000 gas AMI modules. Tr. 104.

60. Electric AMI meters are two-way communication meters. Tr. 105.

61. The electric AMI meters and the gas AMI modules use a component known as the "FlexNet" module to communicate with a Tower Gateway Base Station, which is a collector that PECO has located throughout its service territory. Tr. 105-06, PECO Exh. GP-2.

62. On average, the FlexNet module in the electric AMI meters transmit ten times a day. Tr. 106. In order to conserve battery power, the gas AMI modules transmit less frequently than that. Tr. 106-07.

63. The electric AMI meter also has a radio, known as the Zigbee radio, that transmits to smart devices in the house. The Zigbee transmits every 30 seconds until it pairs with a smart device in the home. Tr. 122. The Zigbee transmits at 2.4 gigahertz. Tr. 106.

64. The gas AMI module does not have a Zigbee radio transmitter. Tr. 107. The gas AMI module is battery powered and does not have gas service disconnection capability. Tr. 107.

65. PECO installed gas AMI modules because they operate at the same frequency, and use the same support system as, the electric AMI meters; it does not make sense to pay to operate two separate systems using different frequencies to collect billing data from the electric meters and the gas meters. Tr. 108.

66. PECO postponed installing an electric AMI meter and a gas AMI module at the Branagh residence since 2012 as an accommodation to her health refusal. However, the AMR system was decommissioned in April 2017 and PECO cannot continue to operate AMR meters and must proceed with installation of AMI technology at the Branagh residence. Tr. 108-09, 118-20.

67. Ms. Branagh expressed concern that moving the electric AMI meter would not be effective because there would be some form of feedback into the electric system from the electric AMI meter. Such claimed feedback is sometimes referred to as “harmonics” or “dirty electricity.” Tr. 109.

68. All electricity sources, other than batteries, create harmonics on the electric system. Tr. 141-42.

69. PECO’s electric AMI meter does not introduce appreciable harmonics into the electrical system. Tr. 110, 142. The harmonics from a refrigerator would be much greater than the harmonics from an electric AMI meter. Tr. 110.

70. Moving the electric AMI meter some distance away theoretically would reduce harmonics from the electric AMI meter, but the levels of harmonics is so low it would be difficult to measure the difference. Tr. 111.

71. The gas AMI module is not connected to the electrical system, and therefore produces no harmonics on the electric system. Tr. 111.

72. Even if a person calls in their meter readings or sends a card in with meter readings, the residence is still required by Act 129 to have an electric AMI meter installed. Tr. 112.

73. If a person called or sent in a card with meter readings, PECO would investigate why the AMI meter was not properly communicating. If it was properly communicating, PECO would use readings from the AMI communications as the basis of billing.

If the AMI was not communicating, PECO would conduct an investigation, field a crew, and remediate the communication issue so that the AMI could properly communicate. Tr. 113.

74. PECO's electric and gas tariffs provide that PECO is authorized to choose the type of meters that will be used on its system; PECO has chosen electric AMI meters and gas AMI modules. Tr. 113-14, Exh. GP-3.

75. If the meter is located at a distance from the home, the strength of radiofrequency fields will fall off quickly with distance. Tr. 115.

76. The customer decides where to put the meter socket, as long as that location meets the guidelines established in PECO's Electric Service Tariff. Tr. 115-16, PECO Exh. GP-3. PECO would install an AMI meter in a relocated meter socket if the Complainant chose to relocate her meter socket. Tr. 117. If moving the meter board causes PECO to incur costs to extend its system to the new location, under PECO's tariff the customer is responsible for those costs. Tr. 117.

77. An Advanced Meter Service Provider (AMSP) is a third party permitted by Section 14.1 of PECO's Electric Service Tariff to provide alternative meter technology to customers for compensation. Tr. 117, PECO Exh. GP-3.

78. AMSPs must be licensed by the Commission. Tr. 117-18, PECO Exh. GP-3.

79. Currently, there are not any licensed AMSP's on PECO's system. Tr. 117.

80. PECO's electric AMI meters have passed Underwriters' Laboratory Standard 2735. Tr. 123.

81. PECO's electric AMI meters can sense a hot socket and alert PECO to that situation so that it can respond. Tr. 124.

82. PECO's AMI technology does not produce pulsed or spiked radiofrequency fields. Tr. 127, 144-45.

83. Dr. Christopher Davis is a professor of electrical and computer engineering at the University of Maryland in College Park who studies, researches, teaches, and serves on national and international panels related to physics, biophysics, electrical engineering, electromagnetics, radiofrequency exposure and dosimetry. Tr. 128-35.

84. The Federal Communications Commission (FCC) has promulgated limits for the maximum permissible exposure to radiofrequency fields emitted by a Smart Meter as 0.6 mW/cm^2 , calculated as an average exposure over time. Tr. 146-151, PECO Exhs. CD-2, CD-3 and CD-4.

85. The average exposure from PECO's electric AMI meters and gas AMI modules, whether considered separately or in combination, is millions of times less than the FCC maximum permissible exposure levels. Tr. 149-150.

86. The peak exposure from PECO's electric AMI meters and gas AMI module, even if both were broadcasting at the same time, would be approximately 20 times less than the FCC average-exposure standards. Tr. 151-52; Exh. CD-5.

87. The exposure from PECO's electric AMI meters and gas AMI modules is also millions of times less than the guidelines published by the International Commission on Non-Ionizing Radiation Protection. Tr. 153; PECO Exh. CD-6.

88. In everyday life, people are exposed to radiofrequency field levels from many sources that are much higher than the radiofrequency fields associated with PECO's AMR or AMI meters. Tr. 153-55; PECO Exh. CD-7.

89. If Ms. Branagh were to average three texts per day on her cell phone, with the phone held at arm's length, her radio frequency exposure from those three texts would be

approximately the same as standing 10 feet away from one of PECO's electric AMI meters for an entire 24-hour period. Tr. 155.

90. If Ms. Branagh is 30 feet away from someone else's cell phone while they are making a call, the fields are 141 times larger than the combined fields from the electric AMI meter and the gas AMI module. Exh. CD7.

91. Continuous background exposure from UHF TV stations near Ms. Branagh's home is 248 times greater than exposure from a PECO AMI meter. Tr. 155-56; Exh. CD-8.

92. The electric AMI meter will emit 83% less radiofrequency fields than does the existing electric AMR meter at Ms. Branagh's residence. Tr. 156-57; PECO Exh. CD-9.

93. The letter from the American Academy of Environmental Medicine does not provide reliable information for evaluating whether AMI meters cause adverse biological effects; it is not written by appropriate experts and cherry-picks from the available science; its conclusions are not generally accepted by the majority of scientists who have looked at the issue. Tr. 157-59.

94. Dr. Davis testified, to a reasonable degree of scientific certainty, that the exposure to radiofrequency fields from PECO's electric AMI meters and gas AMI modules is "incredibly small," and is millions of times smaller than the FCC guidelines for such exposure. Tr. 159-60.

95. The warmth in their ears that some people feel when using a cell phone is due to heat generated by the phone, not exposure to radiofrequency fields from the phone. This warmth can cause headaches or neuralgia. Tr. 168.

96. Dr. Mark Israel attended the Albert Einstein College of Medicine, had an internship and residency at Harvard Medical School, has worked at the National Institutes of

Health and been a professor of medicine and medical research at numerous medical schools. He has studied radiofrequency fields and health effects. Tr. 175-82.

89. Dr. Israel began to examine the research on electromagnetic fields, including radiofrequency fields, and health effects during his tenure at the National Cancer Institute more than more than 25 years ago. He has continued to follow the research literature on this subject since that time. Tr. 181-82.

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Summary of Argument

As the Complainant, Ms. Branagh has the burden of proving her claim that PECO's electric AMI meter or gas AMI module will cause her to have adverse health effects. She did not meet that burden. Her testimony did not support her claims. Her own testimony established only that she believes that the radiofrequency fields from an AMI will harm her, but did not present substantial evidence in support of that belief. PECO, however, presented expert testimony that demonstrates:

- Radiofrequency fields from PECO's AMI meters are millions of times lower than the FCC's Maximum Permissible Exposure Limit (and also to international exposure guidelines)
- Radiofrequency fields from the new AMI meters are substantially less than the radiofrequency fields associated with the AMR meter that has been in place at Ms. Branagh's residence for many years
- Radiofrequency fields from the new AMI meters are substantially less than those regularly encountered in everyday life
- The scientific literature does not provide a reliable medical basis to conclude that radiofrequency fields associated with AMI meters could cause, contribute to, or aggravate health effects or conditions, including those being experienced by Ms. Branagh.

PECO' tariff allows a customer to choose the location of their meter board and socket; this provides a reasonable alternative for meter relocation. Ms. Branagh was offered but rejected this alternative. PECO also has a tariff provision that allows third party Advanced Meter Service Providers to offer competitive metering services, although none have currently obtained Commission licenses to do so. PECO also provided Ms. Branagh with a reasonable accommodation by postponing installation of AMI technology at her home for many years until the last stage of its AMI deployment.

Numerous other state utility commissions have reviewed the science on smart meters and health and concluded that AMI meters are safe and their use in the provision of utility service is reasonable.

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

PECO provided reasonable utility service when it installed the gas AMI module at the Branagh residence.

Argument

I. Ms. Branagh did not meet her burden of proving, by a preponderance of the evidence, that PECO's AMI meter will cause her to suffer any adverse health conditions

A. Ms. Branagh has the burden of proving that PECO's AMI meter will cause her to suffer from adverse health conditions

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

In the seminal Commission case allowing an AMI/health hearing – *Kreider v PECO* – the Commission made clear that this general rule applies to AMI/health proceedings, stating (Jan. 28, 2016 Order, pp. 21-23, emphasis added) that:

Holding a hearing in this case, to address Ms. Kreider's factual averments regarding the specific health effects she experienced after the smart meter was installed outside of her bedroom, will enable us to closely evaluate these claims based on a fully developed evidentiary record.

[A]s we expressed in the *September 2015 Order*, while we find that the Complainant should have the opportunity to be heard on her averments regarding the "deleterious health symptoms" related to the smart meter, the Complainant will have the burden of proof during the proceeding to demonstrate, by a preponderance of the evidence, that PECO is responsible or accountable for the problem described in the Complaint. 66 Pa. C.S. § 332(a); *Samuel J. Lansberry, Inc. v. Pa. PUC*, 578 A.2d 600 (Pa. Cmwlth. 1990), *alloc. denied*, 529 Pa. 654, 602 A.2d 863 (1992). In order to carry this burden of proof, the Complainant may be required to present evidence in the form of medical documentation and/or expert testimony. The ALJ's role in the proceeding 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 PECO's use of a smart meter to measure this Complainant's usage will constitute unsafe or unreasonable service in violation of Section 1501 under the circumstances in this case. (emphasis added).

In the March 1, 2017 Ruling on PECO's Preliminary Objections, Your Honor informed the parties that this same rule would apply in the current proceeding, stating (p. 5): "If the matter proceeds to hearing, the burden will be on the Complainant to prove, by a preponderance of the evidence, that PECO is responsible for the problem described in her Complaint. Failure to meet this burden may result in dismissal of the Complaint." (citations omitted).

In sum, Ms. Branagh has the burden of proof in this proceeding.

PECO understands that Ms. Branagh sincerely believes that, if AMI technology is installed at her residence, it will cause her to suffer adverse health effects. Her belief, however, is not the issue under examination in this remand. She must prove more than her own belief - she must prove, by a preponderance of the evidence, that PECO's electric AMI meter or gas AMI module will cause the health effects of which she complains.

B. Ms. Branagh's testimony did not provide substantial evidence in support of her health claim

Ms. Branagh's testimony on health issues was limited. First, she testified that she currently suffers from several medical conditions. The precise nature of those conditions was specified during the confidential portion of the evidentiary hearing and they are described in PECO's Proposed Findings of Fact 8-15, which are marked Confidential; her medical conditions will thus not be repeated here. She also claimed that, in part because of her existing conditions, she believes that she has electrical hypersensitivity, or "EHS," Tr. 49-50, which she believes makes her sensitive to radiofrequency transmissions from PECO's AMI technology.

Ms. Branagh presented no medical records stating that she has EHS, nor did she present any expert testimony that she has that condition. Indeed, she testified that she has never seen a doctor with respect to her belief that she has EHS. Tr. 49-50. In addition, she presented no

medical records or expert testimony that exposure to radiofrequency fields from PECO's electric AMI meter or gas AMI module would cause, contribute to, or exacerbate any health condition, including EHS.

During her direct testimony, Ms. Branagh referred to a letter signed by members of the American Academy of Environmental Medicine as being a primary basis for her beliefs regarding AMI technology and health. Dr. Davis, whose qualifications and additional testimony are set forth later in this brief, testified that the letter from the American Academy of Environmental Medicine does not provide reliable information for evaluating whether AMI meters cause adverse biological effects; it is not written by appropriate experts and cherry-picks from the available science; its conclusions are not generally accepted by the majority of scientists who have looked at the issue. Tr. 157-59.

PECO respectfully submits that the testimony set forth above is simply not enough to sustain Ms. Branagh's burden of proof. Her testimony, taken as a whole, does not constitute substantial evidence that PECO's AMI meter will cause harm to Ms. Branagh. It is obvious that Ms. Branagh sincerely believes that her health will be harmed by an AMI – but her subjective belief is not proof. Her testimony, even if taken as true and given full weight, only establishes that *she believes* that AMI technology will cause her harm. That is simply insufficient evidence for the Commission to conclude that the electric AMI meter or gas AMI module in fact *will* cause her harm.

II. PECO presented substantial, persuasive expert testimony that demonstrates that its AMI meters and modules will not cause, contribute to, or exacerbate adverse health effects in Ms. Branagh

As noted above, Ms. Branagh has the burden of proof. When the limited testimony of Ms. Branagh is viewed in the context of the evidence adduced by PECO, it is absolutely clear that Ms. Branagh failed to demonstrate, by a preponderance of the evidence, that PECO's electric AMI meter or gas AMI module will cause, contribute to, or exacerbate any adverse health effects.

On these issues, PECO sponsored the testimony of two eminent scientists – Dr. Christopher Davis, and Dr. Mark Israel – and of a PECO engineer with expertise in the design and operation of the advanced meter system, Mr. Glenn Pritchard.

A. Dr. Christopher Davis is a physicist and engineer and is an expert in physics, biophysics, electrical engineering, electromagnetics and radio frequency exposure and dosimetry

Dr. Christopher Davis is a Professor of Electrical and Computer Engineering at the University of Maryland. He has a PhD in physics from the University of Manchester (England). He regularly teaches electromagnetics, including issues to do with radiofrequency waves. He has conducted research on electromagnetics, including radio frequency phenomena and devices, and has published hundreds of papers and presentations presenting the results of his research. He has been elected as a fellow of the Institute of Electrical & Electronics Engineers (“IEEE”), and as a fellow of the Institute of Physics. In his work with IEEE, he served as a member of the Committee on Man and Radiation (“COMAR”), and was chair of the COMAR subcommittee on radio frequency fields. He regularly acts as a peer reviewer for journals on issues related to electromagnetics. He has served as a consultant on radiofrequency fields to the United States Institutes of Health, the U.S. Food and Drug Administration, and United Kingdom Health

Protection Agency. At the hearing, he was recognized, without objection, as an expert in physics, biophysics, electrical engineering, electromagnetics and radiofrequency exposure and dosimetry. Tr. 128-135.

1. Dr. Davis demonstrated that the radiofrequency fields from PECO's AMI technology are well below the radiofrequency exposure guidelines of the U.S. Federal Communications Commission and the International Commission on Non-Ionizing Radiation Protection

Dr. Davis testified that the Federal Communications Commission ("FCC") has established a "Maximum Permissible Exposure," or "MPE," for radiofrequency fields from AMI meters. The limit is 0.6 mW/cm^2 , or "milliwatts per square centimeter." The FCC standard was set on the following basis: there is one generally accepted mechanism by which radiofrequency fields can cause harm to humans – by being high enough to heat tissues. The FCC determined the lowest level of radiofrequency exposure at which animals have been observed to detect that they are feeling a little bit warm in a radiofrequency field. The FCC then set the radiofrequency exposure standard at a level 50 times below that thermal threshold. In establishing and maintaining these standards, the FCC consults closely with the Food and Drug Administration, the Occupational Safety and Health Administration, and the National Institutes of Occupational Safety and Health. Tr. 146-51, PECO Exh. CD-2.

Dr. Davis testified that the average exposure from an electric AMI meter or gas AMI module is many millions of times less, compared to the FCC standards. Tr. 149-50. Even at *peak* exposure, the combined radiofrequency fields from an electric AMI meter and a gas AMI module are 20 times smaller than the FCC *average-exposure* standards. Tr. 151-52.

Dr. Davis also testified that, internationally, the radiofrequency exposure guidelines are set at levels somewhat lower than the FCC Maximum Permissible Exposure levels. These

guidelines were issued by the International Committee on Non-Ionizing Radiation Protection, or "ICNIRP." Dr. Davis testified that radiofrequency exposure from an average PECO AMI technology are millions of times smaller than allowed under the international standards. Tr. 153; PECO Exh. CD-6.

- 2. Dr. Davis demonstrated that PECO's legacy AMR meters, which have been in place since the early 2000s, have radiofrequency fields that are substantially higher than AMI meters**

PECO's existing meter system, which uses AMR meters, also communicates using radiofrequency transmissions. Dr. Davis compared the radiofrequency exposure from the existing AMR meters to the radiofrequency exposure from the new AMI meters. He concluded that the AMI meter will provide 83% less radiofrequency exposure than the electric AMR meter that is currently installed at the Branagh residence. Tr. 156-57; PECO Exh. CD-9.

- 3. Dr. Davis demonstrated that radiofrequency exposure from PECO's AMI technology is far less than people experience from other sources**

Dr. Davis also compared the radiofrequency exposures from PECO's AMI meters to the radiofrequency exposures that people experience in their everyday life. Allowable leakage from a microwave oven ($5\text{mW}/\text{cm}^2$) are nearly 300,000 times the exposure from a PECO AMI meter. Exposure when using a cell phone is millions of times higher than from an AMI meter. Typical exposure from standing 30 feet away from someone else using a cell phone results in exposure that is 141 times greater than being simultaneously exposed to peak emissions from an electric AMI meter and peak emissions from a gas AMI module. Television broadcasters continue to broadcast using radiofrequency fields, and at Ms. Branagh's home, the background radiofrequency fields from UHF television broadcasting are 248 times larger than the average exposure from an AMI meter. Although Ms. Branagh primarily uses her cell phone usage to text,

if she texts only three times per day, that provides the same radiofrequency exposure as standing 10 feet in front of an electric AMI meter for 24 hours. Tr. 153-55, PECO Exh. CD-7.

Based on all of his testimony, Dr. Davis concluded, to a reasonable degree of scientific certainty, that the radiofrequency fields from PECO's AMI technology are "incredibly tiny" and are millions of times smaller than the FCC exposure limits. Tr. 159-60.

4. Dr. Davis and Mr. Pritchard established that PECO's AMI meters do not create "dirty" electricity or use pulsed communication

Ms. Branagh expressed concern that PECO's AMI technology will create "dirty" electricity or harmonics. She expressed a similar concern that the system uses "pulses" to communicate.

Both Dr. Davis and Mr. Pritchard¹ addressed these concerns. They explained that PECO's electric AMI meters create minimal harmonics that are virtually non-existent, and that the gas meter will create no harmonics because it is battery-powered and thus not connected to the electrical system. They also stated that the PECO system does not create pulsed emissions. Tr. 109-11, 127, 141-45.

B. Dr. Mark Israel is a medical doctor and is an expert in whether there is a relationship between electromagnetic fields, and particularly radiofrequency fields, and health effects.

¹ Mr. Pritchard is PECO's Manager of Advanced Grid Operations and Technology Group. Before that he was the principal engineer of PECO's Smart Grid Project. For the past eight years, he has focused on AMI technology, and he selected the technology that was ultimately deployed by PECO. He has a degree in electrical engineering, and is a licensed professional engineer. He has been invited to make presentations about AMI meters by the Institute of Electrical & Electronics Engineers, the Edison Electric Institute, and the Electric Power Research Institute. He has spoken about AMI meters on behalf of the United States Trade & Development Agency, giving invited presentations in South Africa, Vietnam, and Turkey, amongst others. He was recognized, without objection, as an expert in the design, operation, and technology of advanced grid installations. Tr. 95-97.

Dr. Mark Israel is a medical doctor who was educated at Albert Einstein College of Medicine and trained at Harvard Medical School. He is licensed to practice medicine and treat patients. He has taught medical students, interns, and medical residents for more than 25 years. He has worked over the years at the National Institutes of Health (at both the National Institute of Allergy and Infectious Disease and the Molecular Genetics Section of the National Cancer Institute) and at the University of California Medical School in San Francisco. Tr. 323-29.

He has held positions as Professor of Genetics and Pediatrics at Dartmouth Medical School. He also has been the Director of the Dartmouth Cancer Center, teaches medical school at Dartmouth, has a research laboratory at Dartmouth, and has been the chief administrator of the cancer center. He has published more than 200 scientific papers reporting the results of his research. Dr. Israel is an elected member of the American Association for the Advancement of Science and American Society of Clinical Investigation. He has received the C. Everett Koop Medal of Courage for work in evidence-based medicine, and has been awarded the United States Public Health Service Commendation Medal. Tr. 175-82.

He first became interested in studies regarding exposure to electromagnetic fields and health more than 25 years ago when, as a practicing pediatric oncologist, parents raised questions regarding exposure of their children to electromagnetic fields from power lines. He has remained interested in, and followed, the field since that time. Tr. 181-82.

Dr. Israel was recognized, without objection, as an expert in the fields of medicine and medical research, including cancer, and the possible health effects of electromagnetic fields including power frequency fields and radiofrequency fields. Tr. 183.

- 1. Dr. Israel reviewed the scientific literature on radiofrequency fields and health and concluded that there is no reliable medical basis to conclude that radiofrequency fields associated with AMI devices could cause, contribute to or aggravate any health effects**

Dr. Israel stated that he conducted a medical evaluation of whether radiofrequency fields cause, contribute to, or could exacerbate the conditions that Ms. Branagh identified in this case. Dr. Israel conducted that evaluation in the same manner as he would routinely do an evaluation in his medical practice – that is, he searched databases to identify the relevant studies and then examined those studies; and also considered reviews of the research by public health agencies. In doing that review, he considered both the studies that showed an effect and the studies that did not show an effect, because a reliable medical evaluation requires review of all the studies. He also identified and reviewed reports by various public health agencies, primarily to determine whether he had missed any key research and to determine whether there a consensus opinion that contradicted his own views. Tr. 183-87.

Dr. Israel's review encompassed the various health conditions that Ms. Branagh states that she has, as well as her claim that she suffers from electric hypersensitivity, or EHS. Based on that review, he concluded, to a reasonable degree of medical certainty, that there is no reliable medical basis to conclude that radiofrequency fields from PECO's electric AMI meters or gas AMI modules causes, contributes, or exacerbates:

BEGIN CONFIDENTIAL MATERIAL

END CONFIDENTIAL MATERIAL

III. PECO offers its customers, including Ms. Branagh, reasonable alternatives regarding AMI meter installation

In remanding these AMI/health cases for hearings, the Commission has raised the question of whether PECO can offer some accommodation or alternative to customers, such as Ms. Branagh, who have concerns about AMI meters. In its January 28, 2016 *Kreider* Order, the Commission elaborated on the kinds of accommodations or alternatives that might be possible, stating (p. 23) that: “It may be possible, for example, for the Respondent to install the smart meter in a different location other than outside of the Complainant’s bedroom or to use a different type of smart meter at this Complainant’s home.”

As to installation of the smart meter in a different location, Mr. Pritchard testified that under PECO’s Tariff, Rules 3.2 and 3.4, the customer has the option of relocating the meter to a different location. Tr. 115-16, PECO Exh. GP-3. This is because, while PECO chooses the type of meter, the customer chooses the location of the meter board and socket. Tr. 117. If the customer would like a different location for the AMI meter, they can hire an electrician to move the meter board/socket to a new location on their property. This will, in some situations, require work on the PECO system as well to extend its conductors to the new meter board location. PECO would view such changes to its system to be “for the accommodation of the customer” and thus, under PECO’s Tariff Rule 6.2, the customer would be responsible for the cost of the changes to the PECO system. Tr. 117, PECO Exh. GP-3. But those changes are all within the control of the customer and, once they are made, PECO would install the AMI meter at the new, customer-chosen, location.

Prior to hearing, PECO called Ms. Branagh on at least two occasions to discuss the option of relocating her electric meter board and meter. Tr. 77-78. On both occasions, Ms. Branagh rejected this option. Tr. 77-78. She continued to reject this option at hearing.

PECO notes that this option remains open and, if Ms. Branagh wishes to explore this option, PECO will work with her to relocate the meter.

As to installing a “different type of smart meter,” PECO’s Tariff has a provision that allows third parties to come onto its system and provide such technology, on a competitive basis. Rule 14.1 allows for an Advanced Meter Services Provider (“AMSP”) to provide Advanced Metering Services, which presumably may, in the future, include “different types of smart meters.” Tr. 117-18, PECO Exh. GP-3. Currently, no AMSPs are licensed by the Commission to do business. Tr. 117. However, if the market develops and makes such meters available, then PECO’s Tariff already contains a provision that allows for such meters to be deployed, subject to the third party being licensed by the Commission, the meters meeting the requirements of Act 129, and the AMSP’s services being properly integrated into PECO’s computer systems.

PECO made an additional accommodation for Ms. Branagh. PECO originally contacted Ms. Branagh to install an electric AMI meter in 2012. Tr. 64. Shortly thereafter, Ms. Branagh stated that she did not want an AMI meter installed because of her belief that it would harm her health. Tr. 65-66. Consequently, PECO postponed installation of an AMI meter at the Branagh residence for years – indeed, one has still not been installed. Tr. 11-12, 63. And it postponed installation of the gas AMI module until late 2016. Tr. 1-12, 63. This delay was an accommodation to Ms. Branagh’s stated concerns. Tr. 108-109, 118-20.

At the end of the day, however, it is clear that the only accommodation that will satisfy Ms. Branagh is to not have a smart meter at all. And that option is not available. As Your Honor and ALJ Pell wrote in your April 5, 2016 *Order Granting in Part and Denying in Part Respondent’s Preliminary Objections* in *Tucker v. PECO*, C-2015-2515592 (p. 5):

Relief sought by the [Complainants] includes an “opt out” of installation of a smart meter. The Commission has stated that there

is no provision in the Code, the Commission's Regulations or Orders that allow a PECO customer to "opt out" of smart meter installation.

In sum, PECO has offered reasonable alternatives for location and alternative providers of metering technology.

IV. State public utility commissions that have examined whether AMI meters cause or contribute to health effects have concluded that AMI meters are safe and that their use is reasonable.

This is one of a series of seminal cases in Pennsylvania that allow an evidentiary examination of whether radio frequency fields from AMI meters cause or contribute to adverse health effects. PECO notes, however, that there have been numerous evidentiary investigations into that or similar issues conducted by state utility commissions in the United States. Those other state commission investigations variously concluded that radiofrequency fields from smart meters fall well under established guidelines, are not a threat to human health, and do not warrant additional state utility commission regulation – in other words, that the use of such meters is reasonable. Specifically, PECO is aware of the following investigations and conclusions from other state commissions:

- California Public Utilities Commission, Application of EMF Safety Network for Modification of D.06-07-027 and D.09-03-026, December 6, 2010: "In summary, the RF emissions produced by Smart Meters is extremely small in comparison to the RF emissions from many other commonly used devices and far below emission standards set by the FCC, which licenses or certifies the Smart Meters used by PG&E. Since the Commission generally does not delve into technical matters which fall within the expertise of another agency, in this case we defer to the FCC, which possesses extensive expertise on its staff for evaluating and licensing or certifying Smart Meter devices that operate via the use of wireless technology."
- District of Columbia Public Service Commission, Investigation Into PEPCO's Smart Meters. September 20, 2013: "... the Commission has found no credible,

scientific evidence to show that the level of RF emissions from the Pepco smart meters is a threat to human health."

- Florida Public Service Commission, Smart Meter Briefing Sheet (undated): "The Commission concluded that health standards for smart meter RF emissions are set by the FCC, that smart meters operate within established authorized standards, and that the State would not implement any additional standards for smart meter RF emissions.
- Maine Public Utilities Commission, Request for Commission Investigation into Smart Meters and Smart Meter Opt-Out, Docket No. 2011-00262, March 25, 2014: "For the reasons discussed in this Order, we conclude that Advanced Metering Infrastructure (AMI), including the use of "smart meters," as implemented and operated by Central Maine Power Company (CMP or the Company), is a safe, reasonable, and adequate utility service as required by statute." [The reasons discussed in the Order include the following.]
 - i. "There are no credible, peer-reviewed scientific studies in the record that demonstrate, or even purport to demonstrate, a direct human health risk specifically from smart meter RF emissions;"
 - ii. "CMP's installation and operation of its smart meter system is consistent with federal and state energy policy and is a generally accepted utility practice throughout the country."
- Maine Public Utilities Commission, Request for Investigation Into Smart Meters and Smart Meter Opt-Out; Request for Commission Investigation into Central Maine Power Company and Smart Meters, December 19, 2014: "As discussed in this Order, we find that Advanced Metering Infrastructure (AMI), including the use of "smart meters," as implemented and operated by Central Maine Power Company (CMP or the Company), does not present a credible threat to the health and safety of CM P's customers and, based on the record of this proceeding is, therefore, safe."
- Massachusetts Department of Public Utilities, Investigation by the Department of Public Utilities on its Own Motion into Modernization of the Electric Grid, June 12, 2014: "[A]fter thorough review and consideration of the issue, the Department is unaware of any credible, peer-reviewed scientific studies that demonstrate a direct human health risk from exposure to the low-level RF signals from advanced meters."
- Michigan Public Service Commission, U-17000 Report to the Commission, June 29, 2012: "After careful review of the available literature and studies, the Staff has determined that the health risk from the installation and operation of metering systems using radio transmitters is insignificant. In addition, the appropriate

federal health and safety regulations provide assurance that smart meters represent a safe technology"

- **Nevada Public Utilities Commission, February 9, 2012: "Smart meters meet the FCC emission standards and the RF emissions from smart meters are far lower than the FCC guidelines The FCC has taken a very conservative approach to RF exposure compliance for low-power network devices such as smart meters. The FCC 'is continually monitoring the issue of RF exposure and related health and safety concerns, both in general terms of the continuing propriety of its regulations, and in individual cases where substantive concerns are raised."**
- **New Hampshire Public Utilities Commission, Joan Wirth Request for Hearing on Installation of Smart Meters, Order Denying Hearing Request, September 6, 2012. "Based on this product information, we find that the NHEC basic, or standard, smart meters meet applicable FCC RF exposure limits. Having determined that the NHEC basic, or standard, smart meters meet FCC limits for exposure to RF radiation, we must consider whether we need to accept the FCC limits on exposure to RF radiation or seek other guidance on the health and safety of the Elster Type R2S meters."**

"Having determined that NHEC's meters meet the FCC RF emissions limits, we will not explore a separate state standard for RF emissions because we find that the FCC limits pre-empt a separate and potentially conflicting state standard."

- **Public Utility Commission of Texas, Report on Health and Radiofrequency Electromagnetic Fields from Advanced Meters: September 6, 2012: "Staff has determined that the large body of scientific research reveals no definite or proven biological effects from exposure to low-level RF signals. Further, Staff found no credible evidence to suggest that advanced meters emit harmful amounts of EMF."**
- **Vermont Department of Public Service, An Evaluation of Radio Frequency Fields Produced by Smart Meters Deployed in Vermont, January 14, 2013: "The FCC MPE values were derived with the inclusion of a safety factor of 50 below the actual threshold of hazard from prolonged exposure. When the above estimated RF field exposures for GMP and BED meters at the closest distance of one foot are considered in this light, this means that the most conservative estimates of potential exposure range between approximately 75,000 and 156,000 times less than the hazard threshold respectively."**

"Using the highest indicated results from the measurements performed in this study, potential exposure of individuals to the RF fields associated with the currently deployed smart meters in the GMP and BED service territories is small when compared to the limits set by the FCC. It is concluded that any potential exposure to the investigated smart meters will comply with the FCC exposure rules by a wide margin."

V. PECO acted reasonably in installing a gas AMI module at the Branagh residence

In addition to her health concerns, Ms. Branagh also raised a question as to whether PECO acted reasonably in installing a gas AMI module at her home, given that PECO knew about her health beliefs at the time it installed the gas AMI module.

Mr. Pritchard testified that PECO's tariff rule 3.4 states that PECO shall own the meters used by it in the provision of service; Rule 14.1 gives PECO the right to choose which metering technology it will use, and it has chosen to use AMI technology for both its electric and gas metering systems. Tr. 113-14; PECO Exh. GP-3. It made those choices for good reasons; for electric service; AMI meters are required to comply with Act 129; for gas service, using AMI meters avoids the cost of maintaining separate radiofrequency communication systems for the electric and gas meters.

Moreover, PECO's gas tariff rule 10.5 states that the Company "shall have access to the premises of the Customer at all reasonable times for the purposes of reading meters and disconnecting service, and for installing, testing, inspecting, repairing, removing or changing any or all equipment belonging to the Company" – which includes the meters owned by it. PECO therefore has a clear legal right to access the Branagh premise to remove the old meter or meter components and change them out as it deems necessary.

Ms. Branagh states that she did not have notice that PECO was going to install a gas AMI module. It should be noted that there is nothing in PECO's tariffs or the Commission's regulations that requires PECO to send notice to a customer before accessing and changing out its equipment. Moreover, the Branagh gas meter is located outside of the home, so no customer interaction was needed to change out the AMI gas module. Notwithstanding that, PECO sent a

letter on August 11, 2015 stating that it would be installing a gas AMI module. Tr. 66, Exh. BU-4. It sent another letter on January 22, 2016, stating that it would install a gas AMI module. Tr. 67-68; Exh. BU-6. It sent a third letter on September 20, 2016 stressing the importance of installing a gas AMI module and stating that it would be installing AMI technology for both electric and gas service. Tr. 88, 91, Exh. BU-9.

Mr. Branagh also suggests that, because she sent a doctor's note on April 5, 2016, PECO could not install a gas AMI module without giving her additional notice.

First, the doctor's note sent by Ms. Branagh on April 5, 2016 did not mention radiofrequency transmissions or AMI meters. It did not state that installation of AMI technology was in any way contra-indicated for Ms. Branagh. It did not claim she had electrical hypersensitivity. Tr. 69, PECO Exh. BU-8. Indeed, no one reading that note would have had any reason to conclude that Ms. Branagh's doctor had expressed any opinion whatsoever regarding installation of a gas AMI module.

Second, prior to installation of the gas AMI module, PECO in fact did send Ms. Branagh an additional letter on September 20, 2016, re-expressing the importance of AMI installation. And it is clear that Ms. Branagh understood that PECO's September 20 letter expressed its intention to move forward with installation of AMI technology, because she sent PECO an email late on the evening of September 27 re-asserting her opposition to installation. Tr. 72, Exh. BU-10.

Third, in order to establish a stay on PECO activities that are specifically authorized by its tariff, such as changing a meter, a customer must do more than simply call PECO and state that they do not consent to PECO's activities. The customer must initiate an informal or formal

complaint at the PUC. And since Ms. Branagh did so – by filing an informal complaint on October 17, 2016 and this formal complaint on November 16, 2016 – PECO has honored that stay and has not moved to install her electric AMI meter, other than having conversations with her about electric meter relocation.

In sum, PECO acted reasonably when it sent Ms. Branagh three letters stating that it needed to change her gas AMI module prior to changing the gas AMI module, and then exercising its tariff right to access and change its meter equipment. The fact that Ms. Branagh had, some five months earlier, sent a doctor's note stating that she has chemical sensitivity does not change the reasonableness of that action.

VI. Conclusion

PECO respectfully submits that, on the record evidence in this proceeding, the Commission should follow the lead of the other state commissions and find that there is no reliable medical basis to conclude that radio frequency fields associated with AMI devices could cause, contribute to any health effects or exacerbate any symptoms, including Ms. Branagh's conditions. Moreover, PECO was within its rights to install the gas AMI module. PECO therefore submits that the Commission should conclude that the use of an electric AMI meter and a gas AMI module to provide service to Ms. Branagh is reasonable utility service for purposes of 66 Pa. C.S. §1501.

Proposed Conclusions of Law

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

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

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

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

Conclusion and Proposed Ordering Paragraphs

For the reasons set forth above, PECO respectfully requests that the Commission issue an Order in this proceeding that states:

1. That the Complaint is dismissed;
2. That PECO may install an electric AMI meter at the Branagh residence; and
3. That PECO is not required to remove the gas AMI module at the Branagh residence.

Respectfully submitted,



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September 6, 2017