

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Catherine Lamagna	:	
	:	
v.	:	C-2017-2608014
	:	
Pennsylvania Electric Company	:	

**INITIAL DECISION**

Before  
Jeffrey A. Watson  
Administrative Law Judge

**INTRODUCTION**

A residential customer filed a Formal Complaint (Complaint) seeking to prevent a public utility from replacing her existing electric meter with a smart meter, also known as a Radio Frequency (RF) meter or an Advanced Metering Infrastructure (AMI) meter, at her residence. The complaint will be dismissed for failure to prove by a preponderance of evidence that the proposed meter installation violates a Commission order, rule or regulation or constitutes unsafe or unreasonable service under 66 Pa.C.S. § 1501.

**HISTORY OF THE PROCEEDING**

On June 6, 2017, Catherine Lamagna (Complainant) filed a Complaint with the Pennsylvania Public Utility Commission (Commission) against Pennsylvania Electric Company (Penelec, Respondent or Company) alleging, *inter alia*, that Respondent was threatening to shut off her electric service or has shut off service and objecting to the installation of a smart meter at her home. Complainant averred that smart meters are unsafe, vulnerable to cyber threats, and inferior in quality to analog meters and that they present serious health concerns, emit dirty

electricity, and present various biological issues. As relief, Complainant requested that the Commission: (1) order Respondent to stop threatening to terminate her electric service; (2) order Respondent to stop requesting access to her property to install a smart meter until the smart meters are proven safe and cyber secure by an independent third-party testing facility; (3) require Respondent to incorporate the superior quality, construction and safety features of analog meters; (4) require Respondent to certify, under sanctions of criminal and personal civil liability that the smart meters are not a threat to Complainant's health and the health of those having access to her property and (5) require Respondent to ensure the safety of Complainant and her property.

On June 26, 2017, Respondent filed an Answer and New Matter to the Complaint, essentially admitting that a termination notice was sent to Complainant and denying the remaining material allegations set forth in the Complaint. Respondent averred that Complainant refused to permit technicians to install a smart meter at her home and Respondent provided Complainant with a termination notice for failure to give access to install the smart meter. Respondent further averred it is required by Act 129 of 2008,<sup>1</sup> to install the AMI meter.

On June 26, 2017, Respondent also filed preliminary objections to the Complaint. Respondent essentially averred that the Complaint is legally insufficient.

On July 17, 2017, Complainant filed a letter with the Commission requesting an extension of time, for a period of 30 days or more, to file a response to the preliminary objections and to seek legal advice.

On July 18, 2017, a Secretarial letter was issued indicating that the record did not include a certificate of service evidencing that Respondent was served with a copy of Complainant's letter, and accordingly, a copy of the letter was provided to all parties by the Commission's Secretary on July 18, 2017. No response was filed by any party.

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<sup>1</sup> 66 Pa.C.S. § 2806.1 *et seq.*

On July 24, 2017, a hearing notice was issued, scheduling the telephonic hearing in this matter on August 28, 2017, in Pittsburgh, Pennsylvania. On July 25, 2017, a Prehearing Order was entered, which provided procedural rules and guidelines for the proceeding.

On August 14, 2017, an interim order was entered permitting Complainant to file a response to Respondent's preliminary objections with the Commission and serve a copy upon counsel for Respondent and the undersigned presiding officer on or before September 4, 2017. In addition, the hearing scheduled for August 28, 2017 was cancelled.

On August 31, 2017, Complainant filed an Answer to the Company's Preliminary Objections.

On October 3, 2017, an interim order was issued denying the Company's Preliminary Objections and referring the Complaint to mediation.

On October 17, 2017, an Interim Order Setting Conference Between the Parties was issued requiring that the parties hold a conference to discuss the Formal Complaint filed by Complainant to determine whether a resolution of the Formal Complaint may be reached. This dispute was not resolved through the mediation process and a hearing was requested.

On October 26, 2017, a Call-In Telephonic Hearing Notice was issued which scheduled a telephonic hearing for January 8, 2018.

On October 26, 2017, the Company forwarded to Complainant interrogatories and document requests (Discovery Requests). Objections to the Company's Discovery Requests were due on or before November 6, 2017 and Answers to the Discovery Requests were due on or before November 16, 2017.

Complainant did not file any objection to the Discovery Requests and did not provide any responses or the requested documents by the due date. On November 22, 2017, the Company filed a Motion to Compel followed by an errata to that Motion on November 27, 2017,

to compel Complainant to provide full and complete responses to the Discovery Requests issued by the Company on October 26, 2017.

On December 29, 2017, an interim order was issued granting the Company's Motion to Compel and ordering Complainant to provide full, complete objections and/or responses to the Company's Discovery Requests on or before January 30, 2018. The hearing scheduled for January 8, 2018 was also canceled.

On January 3, 2018, a second prehearing order was issued, setting forth the procedural schedule for the parties. In the prehearing order, the parties were directed to provide each other with the name, business address, and a written summary of the expected testimony of any expert and factual witnesses who may be testifying by February 9, 2018.

On January 10, 2018, a Hearing Cancellation/Reschedule Notice was issued which scheduled a telephonic hearing for May 22 and 23, 2018.

On March 28, 2018, Respondent filed a Motion of Pennsylvania Electric Company To Dismiss Complaint Of Catherine Lamagna For Failure To Comply With Order (Motion to Dismiss). Respondent averred that on January 3, 2018, a Prehearing Order directed the parties to provide each other with the name, business address, and a written summary of the expected testimony of any expert and factual witnesses who may be testifying by February 9, 2018. Respondent further averred that Complainant failed to comply with the January 3, 2018 Prehearing Order. In addition, Respondent averred that on October 26, 2017, it forwarded to Complainant its Discovery Requests, objections to which were due on November 6, 2017 and answers were due on November 16, 2017. Respondent averred that on December 29, 2017, an Interim Order was entered granting the Company's Motion to Compel and ordering Complainant to provide full, complete objections and/or responses to the Company's Discovery Requests on or before January 30, 2018. Respondent averred that no responses to the Company's Discovery Requests were provided to the Company by Complainant.

Complainant did not file a response to the Motion to Dismiss.

An interim order was entered on April 3, 2018, granting in part and denying in part the Motion to Dismiss, and providing Complainant with an additional opportunity to promptly comply with the order granting Respondent's Motion to Compel entered on December 29, 2017 and the order requiring the exchange of information and documentation entered on January 3, 2018. Complainant was ordered to serve upon Respondent, full and complete responses to the interrogatories and requests for production of documents and file and serve a certificate of service on or before April 13, 2018, as previously ordered on December 29, 2017. Complainant was further ordered to serve upon Respondent, all information and documentation as previously ordered on January 3, 2018, on or before April 13, 2018. The order further provided that in the event that Complainant would fail to fully and completely comply with the terms of the order, Respondent may file a motion for sanctions, motion to dismiss or any other appropriate motion for relief.

On May 17, 2018, Complainant called the office of the undersigned presiding officer and requested a postponement of the hearing scheduled for May 22 and 23, 2018. Complainant was instructed to submit her request in writing and to provide a copy of the writing to counsel for Respondent.

On May 17, 2018, the undersigned presiding officer received correspondence by email from counsel for Respondent advising that Complainant contacted counsel for Respondent's office seeking a continuance of the hearing. Counsel indicated that Respondent strongly opposed the continuance request.

On the afternoon of May 18, 2018, the undersigned presiding officer received correspondence from Complainant dated May 18, 2018 requesting a postponement of the hearing scheduled for May 22 and 23, 2018. No reason to justify another postponement of the hearing was provided in Complainant's letter request. Accordingly, an interim order was entered on May 18, 2018 denying Complainant's request for a postponement of the hearing scheduled for May 22 and 23, 2018.

The hearing convened as scheduled on May 22, 2018, and was concluded on that date. Complainant represented herself and testified on her own behalf. Lauren M. Lepkoski, Esquire, Tori L. Giesler, Esquire and Teresa K. Harrold, Esquire represented Respondent; John Ahr, Scott Palmquist and Michael Belanger appeared and testified on behalf of the Company. Witnesses Belanger and Palmquist were qualified as experts in their fields.

Upon conclusion of the hearing, the parties were advised that an order would be entered addressing a briefing schedule. On June 29, 2018, an interim order was entered permitting the parties to file briefs in this proceeding on or before August 30, 2018. On August 30, 2018, Respondent filed a brief. Complainant did not file a brief.

The record closed on August 30, 2018. This case is ripe for a decision.

#### FINDINGS OF FACT

1. Complainant, Catherine Lamagna, resides at 616 Main Street, Thompson, Pennsylvania (Service Location). Tr. 24.

2. Respondent is Pennsylvania Electric Company, an electric distribution company providing electric service to Pennsylvania customers.

3. Complainant filed her complaint with the Commission because she does not consent to the installation of a smart meter at the service location. Tr. 25-26.

4. A smart meter typically includes characteristics that allow bidirectional communications, allowing the meter to communicate to the utility and the utility to the meter; the ability to record consumption data in at least hourly intervals; the ability to bill customers based on this hourly consumption data; and the ability to provide customers with access to this interval usage data. Tr. 106.

5. Complainant was first contacted regarding Penelec's upcoming smart meter installation on December 19, 2016. Tr. 131.
6. On January 19, 2017, Complainant contacted Penelec to refuse a smart meter. Tr. 131.
7. On January 20, 2017, the Company left a message with Complainant to discuss her smart meter refusal. Tr. 132.
8. Penelec's smart meter team reached Complainant on January 25, 2017 and advised her of her right to file a complaint at the Commission. Tr. 132.
9. In May 2017, the Company sent Complainant additional correspondence stating that Complainant's service would be disconnected as a result of her smart meter refusal. Tr. 132.
10. On May 30, 2017, Complainant called the Company to express her continued opposition to smart meter installation. Tr. 132.
11. On May 30, 2017, Complainant was sent a 10-day service termination letter. Tr. 132-133.
12. Act 129 of 2008 required electric distribution companies with more than 100,000 customers to adopt smart meter deployment plans. Tr. 105.
13. Act 129 provides a list of required smart meter functionality, which was supplemented by Commission order. Tr. 106 and 112-113.
14. Penelec's Smart Meter Technology Procurement and Installation Plan was approved by the Commission on June 9, 2010. Tr. 115.

15. The Commission ultimately approved Penelec's Smart Meter Deployment Plan on June 20, 2014. Tr. 121.

16. The Smart Meter Deployment Plan identifies Itron as Penelec's smart meter vendor and network provider. Tr. 118.

17. Penelec's smart meter deployment plan provides for Penelec to deploy smart meters at 100% of its customer service locations. 98.5% of the smart meters need to be installed by mid-2019. The remaining 1.5% of smart meters, which are located in hard-to-reach locations, need to be installed by the end of 2022. Tr. 124-125, Respondent Exhibit 5.<sup>2</sup>

18. As of the date of the hearing, Penelec has not installed a smart meter at Complainant's service location. Tr. 133.

19. Penelec no longer maintains meter reading routes in Complainant's area. Tr. 125.

20. Complainant provided lay witness testimony at the hearing in this matter.

21. Respondent provided expert testimony from Scott Palmquist, a Senior Product Line Manager for Smart Grid Security and Networking, and Michael Belanger, a Senior Product Line Manager for Network Communications.

22. Respondent also offered testimony by Company employee, John Ahr, manager of regulatory compliance for smart meters. Tr. 102-103.

23. Penelec's smart meter privacy policy provides that Penelec will not share sensitive customer information, including the customer's name, address, usage levels, phone number, social security number, driver's license number, employer identification number, date of

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<sup>2</sup> Witness Ahr testified that 98% of smart meters need to be installed by mid-2019; however, the smart meter deployment plan provides for 98.5%.

birth, credit card number, passport number, or bank account number with third parties without the customer's informed consent. Tr. 127.

24. Only customer usage data is transmitted from a customer's smart meter back to Penelec. Tr. 128.

25. Penelec's smart meter network utilizes a number of cybersecurity protections to prevent against unauthorized access to customer's usage data. Tr. 129.

26. Penelec's Privacy Policy related to the confidentiality and cybersecurity protections applicable to smart meters submitted on March 18, 2015 was approved by the Commission on May 1, 2015. Tr. 129, Respondent Exhibit 10.

27. The Itron smart meter network is composed of the Home Area Network, Local Area Network, Regional Area Network, Wide Area Network, and Field Area Network. Tr. 184-188.

28. The smart meters are only configured for a Home Area Network. Tr. 184.

29. Qualified home area network devices must have a digital certificate, used to establish a secure encrypted connection between the home devices and the Itron smart meter. Tr. 184.

30. All smart meters are equipped with the Local Area Network zone, which is the mesh network of smart meters under a field-deployed router. The meters send their data to the field router, which in turn sends the data to the utility data center. Tr. 185.

31. The Regional Area Network is a collection of many Local Area Networks and includes all of the routers and meters. Tr. 185-187.

32. The Local Area Network zone and Regional Area Network zone utilize the same cybersecurity protections. Smart meters only respond to authorized commands from the utility data center and all smart meter data is encrypted. The mesh network is also encrypted. Tr. 186.

33. The Wide Area Network zone is the connection back to the utility data center from the routers for the smart meters in the Local Area Network and Regional Area Network. Tr. 186-187.

34. The Wide Area Network zone is also encrypted and carries the encrypted meter traffic and adds an additional layer of encryption between the field router and the utility data center. Tr. 186-187.

35. The smart meter traffic that is encrypted at the meter level remains encrypted until it is processed by the utility head end software and data collection system at the utility data center. Tr. 187.

36. Cisco's bidirectional communication Field Area Network solutions system is used throughout the Itron communication network. Tr. 188.

37. The Cisco Field Area Network solutions system provides security controls that include hiding all of the network addresses, authenticating the devices and interfaces that are allowed to use the network, monitoring the traffic flows, and providing class of service for different priorities of traffic. Tr. 188.

38. The Cisco solutions system reduces system vulnerability to either physical or cyber-attack; provides resiliency or operating resiliency against disruptions; and provides highly secured access and data privacy for any smart meter information. Tr. 188-189.

39. The National Institute of Standards and Technology (NIST) is an organization considered to be an authority on cyber security issues related to smart meters and smart meter networks. Tr. 191-192.

40. The NIST Interagency Report (IR) 7628 provides guidelines for smart meters and smart meter networks. Tr. 192.

41. NIST Federal Information Processing Standards (FIPS) Publication 197 includes encryption standards (Advanced Encryption Standard – AES) used by Itron smart meters. Tr. 192.

42. Itron follows the smart meter guidance set forth in the publication NIST IR 7628. Tr. 192.

43. The North American Electric Reliability Corporation (NERC) is a federal organization created by the Federal Energy Regulatory Commission that provide standards related to cyber security protections. Tr. 192-193.

44. NERC has developed standards, known as critical infrastructure protection (CIP), which in part, relate to cyber security protections dealing with the bulk creation and transmission of electricity. Tr. 192-193.

45. Itron's smart meters adhere to NERC requirements. Tr. 193.

46. The Federal Communications Commission (FCC) established safe levels for radio transmissions or maximum permissible exposure limits (MPE) for radio transmissions in the United States. Tr. 149-151.

47. The radio frequency (RF) emissions from Itron smart meters produce an RF field that is less than one percent (.08 percent) of the FCC's permissible limits, based on the average transmission duty cycle for these meters. Tr. 152-153.

48. In a 24-hour period, the total amount of time that smart meters are making radio frequency transmissions is just under three minutes. Tr. 149.

49. The 900 megahertz (MHz) local area network (LAN) radio is the radio that the smart meter will use to talk to nearby meters and send communications back to the utility head-end and receive communications from the utility head-end. It is the main smart meter network communication connection component for establishing two-way communications or its network connection. Tr. 151-152.

50. The meter also has a 2.4 gigahertz (GHz) Zigbee radio that transmits at 2.4 gigahertz, and the limit for that radio is 1.0 milliwatts per square centimeter. Tr. 151-152.

51. The Zigbee radio is not a mandatory component of smart meter installation. It can be optional to be active or inactive based on both the utility and customers preference. Tr. 152.

52. The Zigbee radio will not be used unless the customer specifically requests to use it. It is an optional radio that can be enabled on the device to talk to local home area network devices such as a programmable thermostat or a display device in the home. Tr. 151-152.

53. An RF transmission is emitted from the smart meter through the mesh network, then to a cellular network and back to the Company head end system. Tr. 149.

54. Each transmission is of a very short duration that lasts for approximately 150 milliseconds or .15 seconds. Tr. 149.

55. RF transmissions are emitted by electronic devices being operated, such as radios, televisions, computers, garage door openers, baby monitors, cell phones, lap top computers, microwave ovens, and cordless telephones. Tr. 150.

56. FCC regulations indicate that maximum permissible exposure to RF fields emitted by a 900 megahertz LAN meter, such as that in the Itron meter used by Respondent, is 0.61 milliwatts per square centimeter for the 900 MHz LAN radio and 1.00 milliwatts per square centimeter for the Zigbee radio. Tr. 151-152.

57. Penelec's Itron smart meter's 900 MHz LAN radios are within the limits established by the FCC's regulations for intentional and unintentional RF emissions. Tr. 154-155.

58. These limits and compliances apply to both radiated emissions as well as conducted emissions on the power line. Tr. 154-155.

59. Based upon a certification test report from Advanced Compliance Solutions (ACS), Penelec's Itron smart meter's 2.4 GHz Zigbee radios meet the FCC's regulations related to both intentional and unintentional or spurious radio frequency emissions. Tr.156-157, Respondent Exhibit 15.

60. According to the 2010 report titled, "An Investigation of Radio Frequency Fields Associated with the Itron Smart Meter," from the Electric Power Research Institute (a study of), Itron's smart meter RF fields are well below the maximum exposure limit established by the FCC during transmission. Tr. 159-161.

61. At a location one foot away from a smart meter, the RF field is not expected to exceed 0.8% of the FCC's maximum permissible exposure limit during transmission, according to the report. Tr. 161.

62. At ten feet away from a smart meter when inside the home, according to the report, the RF field is significantly smaller at about 0.008% of the maximum permissible exposure limit. Tr. 161.

63. Safe levels for radio frequency transmissions in the United States were established by the FCC, referred to as the maximum permissible exposure limit.

64. The FCC relied on national and international studies to determine the safe levels for radio frequency communication.

65. In particular, the FCC relied on studies by two organizations, the National Council on Radiation Protection and Measurements and the Institute of Electrical and Electronics Engineers.

66. The organizations developed recommendations based on extensive studies of the scientific literature related to the potential biological effects of radio frequencies.

67. No credible evidence was presented to support any claim that the Company's smart meters present a fire risk. Tr. 130.

## DISCUSSION

### Legal Standards

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

If the party seeking a rule or order from the Commission sets forth a *prima facie* case, then the burden shifts to the opponent. *MacDonald v. Pa. R.R. Co.*, 348 Pa. 558, 36 A.2d 492 (1944). Establishing a *prima facie* case requires either evidence sufficient to make a finding of fact permissible or evidence to create a presumption against an opponent which, if not met, results in an obligatory decision for the proponent. Once a *prima facie* case has been established, if contrary evidence is not presented, there is no requirement that the party seeking a rule or order from the Commission must produce additional evidence to sustain its burden of proof. See *Replogle v. Pa. Elec. Co.*, 54 Pa. PUC 528, 1980 Pa. PUC LEXIS 20 (Order entered Oct. 9, 1980); see also *Dist. of Columbia's Appeal*, 21 A.2d 883 (Pa. 1941); *Application of Pennsylvania-American Water Co. for Approval of the Right To Offer, Render, Furnish or Supply Water Serv. to the Pub. in Additional Portions Of Mahoning Twp., Lawrence County, Pa.*, Docket No. A-212285F0148, 2008 Pa. PUC LEXIS 874 (Order entered Oct. 29, 2008).<sup>3</sup>

In smart meter related matters, the Commission has held that “[t]he Complainant will have the burden of proof during the proceeding to demonstrate, by a preponderance of the evidence, that [the utility] is responsible or accountable for the problem described in the Complaint.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064, p. 18 (Order entered Sept. 3, 2015); see also *Romeo v. Pa. Pub. Util. Comm’n*, 154 A.3d 422, 429 (Pa.Cmwlth. 2017) (finding that the smart meter complainant should have a hearing to try to prove his claim through “the testimony of others as well as other evidence that goes to that issue.”)

When presented with a challenge to an AMI meter installation, the Commission has pronounced that “[t]he ALJ’s role . . . will be to determine based on the record in this particular case, whether there is sufficient evidence to support a finding that Complainant was

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<sup>3</sup> In addition, any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence. *Met-Ed Indus. Users Grp. v. Pa. Pub. Util. Comm’n*, 960 A.2d 189, 193 n.2 (Pa.Cmwlth. 2008) (citing 2 Pa.C.S. § 704). Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Borough of E. McKeesport v. Special/Temporary Civil Serv. Comm’n*, 942 A.2d 274, 281 n.9 (Pa.Cmwlth. 2008) (citation omitted). Although substantial evidence must be “more than a scintilla and must do more than create a suspicion of the existence of the fact to be established,” *Kyu Son Yi v. State Bd. of Veterinary Med.*, 960 A.2d 864, 874 (Pa.Cmwlth. 2008) (citation omitted), the “presence of conflicting evidence in the record does not mean that substantial evidence is lacking.” *Allied Mech. and Elec., Inc. v. Pa. Prevailing Wage Appeals Bd.*, 923 A.2d 1220, 1228 (Pa.Cmwlth. 2007) (citation omitted).

adversely affected by the smart meter or whether [the utility's] use of a smart meter will constitute unsafe or unreasonable service in violation of Section 1501 under the circumstances in this case.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064 at 23 (Order entered Jan. 28, 2016) (citing *Woodbourne-Heaton*, 1992 Pa. PUC Lexis 160, at \*12-13). *Frompovich v. PECO Energy Co.*, Docket No. C-2015-2474602 (Opinion and Order entered May 3, 2018 at 10).

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

Section 1501 of the Public Utility Code states, in pertinent part, that:

Every public utility shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. Such service also shall be reasonably continuous and without unreasonable interruptions or delay. Such service and facilities shall be in conformity with the regulations and orders of the commission. Subject to the provisions of this part and the regulations or orders of the commission, every public utility may have reasonable rules and regulations governing the conditions under which it shall be required to render service....

66 Pa.C.S. § 1501.

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

## Record Evidence

Complainant provided testimony in support of her Complaint and testified, *inter alia*, that Act 129 does not mandate smart meters and is unlawful, and smart meters pose privacy and safety concerns. Complainant Exhibits A, B, C, D, E and L were admitted into evidence.

Three witnesses testified on behalf of Penelec. John Ahr, Manager of Regulatory Compliance for Smart Meters, testified for Respondent regarding the mandates in Act 129, regulatory requirements for smart meter plans in Pennsylvania, Penelec's Smart Meter Deployment Plan, the general features of Penelec's smart meters, and the Company's attempts to install a smart meter at the Service Location. Michael Belanger and Scott Palmquist also testified on behalf of the Company. Scott Palmquist, Senior Product Line Manager for Smart Grid Security and Networking, was qualified to provide expert evidence in the fields of advanced metering and network cyber security. Michael Belanger, Senior Product Line Manager for Network Communications, was qualified, to provide expert evidence in the design, operation, communication and technology associated with the Itron advanced metering communication and transmission system. In addition, Respondent Exhibits 1-11 and 13-19 were admitted into evidence.<sup>4</sup>

## Smart Meter Mandate

In her formal complaint, Complainant averred, *inter alia*, that Respondent was threatening to shut off her electric service or has shut off service and objected to the installation of a smart meter at her home. Complainant averred that smart meters are unsafe, vulnerable to cyber threats, and inferior in quality to analog meters and that they present serious health concerns, emit dirty electricity, and present various biological issues. As relief, Complainant requested that the Commission: (1) order Respondent to stop threatening to terminate her electric service; (2) order Respondent to stop requesting access to her property to install a smart

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<sup>4</sup> Respondent's Exhibits are not sequential.

meter until the smart meters are proven safe and cyber secure by an independent third-party testing facility; (3) require Respondent to incorporate the superior quality, construction and safety features of analog meters; (4) require Respondent to certify, under sanctions of criminal and personal civil liability that the smart meters are not a threat to Complainant's health and the health of those having access to her property; and (5) require Respondent to ensure the safety of Complainant and her property.

Respondent argued that, under Act 129, Penelec has an absolute obligation to install smart meters at all of its customers' service locations. Respondent asserted that neither Act 129 nor subsequent Commission orders related to smart meter installation and deployment permit customers to opt-out from smart meter installation.

On October 15, 2008, Act 129 was signed into law and codified as part of the Public Utility Code (Code).<sup>5</sup> Act 129 required EDCs with at least 100,000 customers, such as Penelec, to file a smart meter technology procurement and installation plan (SMP Plan) with the Commission for approval.<sup>6</sup> Specifically, Section 2807(f)(2) of the Code directed EDCs to furnish smart meter technology as follows: 1) upon request from a customer that agrees to pay the cost of the smart meter at the time of the request; 2) in new building construction; and 3) in accordance with a depreciation schedule not to exceed fifteen years.<sup>7</sup>

Pursuant to Section 2807(f) of the Code, Penelec and the other FirstEnergy EDCs in Pennsylvania (Metropolitan Edison Company and Pennsylvania Power Company)<sup>8</sup> filed their Joint Petition for Approval of Smart Meter Technology Procurement and Installation Plan on August 14, 2009 (2009 SMP Plan).<sup>9</sup> By Order entered on June 9, 2010, the Commission

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<sup>5</sup> 66 Pa.C.S. § 101 *et seq.*

<sup>6</sup> 66 Pa.C.S. § 2807(f); *see* Exhibit No. 1.

<sup>7</sup> 66 Pa.C.S. § 2807(f)(2) (emphasis added).

<sup>8</sup> West Penn Power Company, which was acquired through a merger between FirstEnergy and Allegheny Energy, did not join in the filing of this plan. Penelec, Metropolitan Edison Company, Pennsylvania Power Company, and West Penn Power Company are collectively referred to herein as the "Companies."

<sup>9</sup> *See* Exhibit No. 3.

approved the Companies' 2009 SMP Plan with modifications, noting that the Companies expected to file their full deployment plan by April 2012.<sup>10</sup> On December 31, 2012, the Companies filed their Joint Petition for Approval of their Smart Meter Deployment Plan, in which they requested that the Commission: (1) find that their proposed Deployment Plan satisfies the requirements of Act 129 and the Commission's Implementation Order; (2) approve the Companies' proposed procurement and deployment of approximately 2.1 million smart meters, over 98% of which should be installed by the end of 2019; (3) authorize the Companies to continue to recover smart meter costs; and (4) authorize the Companies to create a regulatory asset for their investment in their existing meters to be replaced by smart meters.<sup>11</sup> On March 19, 2014, the Companies submitted their revised Smart Meter Deployment Plan,<sup>12</sup> which, *inter alia*, accelerated the smart meter deployment schedule laid out in their original Deployment Plan.

In this proceeding, Complainant's primary argument is that a smart meter may be deployed at her service location only upon her express request and consent.<sup>13</sup> At the hearing, the undersigned presiding officer summarized Complainant's issue by asking her:<sup>14</sup>

Q. And you believe that the law provides that, unless you consent to the installation, the company cannot force you to have a smart meter at your residence? Is that fair?

A. Yes, Your Honor.

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<sup>10</sup> *Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company for Approval of Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2009-2123950 (Order entered June 9, 2010), p. 10.; see Penelec Exhibit 4.

<sup>11</sup> *Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company For Approval of Their Smart Meter Deployment Plan*, Docket Nos. M-2013-2341990, M-2013-2341991, M-2013-2341993, M-2013-2341994, Smart Meter Deployment Plan, filed December 31, 2012.

<sup>12</sup> See Penn Power Exhibit 5.

<sup>13</sup> Tr. 27.

<sup>14</sup> Tr. 82.

Complainant points to Section 2807(f)(2)(i) of the Code for the proposition that the deployment of smart meters for individual customers should occur only upon request of the individual customer.<sup>15</sup> By extension, Complainant appears to assert that Act 129 allows an overall opt-out for customers to reject installation of a smart meter. Penelec argues that Commission precedent is uniform that the Commission cannot grant exceptions to the statutory directive that smart meters be installed by allowing customers to opt-out. Respondent argues that neither the Company's Commission-approved Smart Meter Deployment Plan nor Act 129 permit such opt-outs to occur.<sup>16</sup>

Complainant's interpretation of Section 2807(f) of the Code is incorrect. Section 2807(f)(2)(i) provides:

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

(i) Upon request from a customer that agrees to pay the cost of the Smart Meter at the time of the request.<sup>17</sup>

FirstEnergy Companies' Commission-approved Smart Meter Deployment Plan provides in pertinent part:

**The Full-Scale Deployment Stage** will commence upon resolution of all problems encountered during the Solution Validation Stage and will continue until all meters are installed on or before December 31, 2022. During this stage, the remainder of the smart meter infrastructure will be concurrently built in each of the Companies' respective service territories, starting with the most populated areas first. All remaining smart meters will be installed during this Stage at an anticipated meter installation rate of 1,900 meters per day, five days per week, and potentially ramping up to 3,000 meters per day if circumstances and conditions warrant. At this pace,

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<sup>15</sup> Tr. 37.

<sup>16</sup> *Smart Meter Deployment Plan*, pp. 9 and 48; see, e.g., *Lutherschmidt v. Metropolitan Edison Company*, Docket No. C-2010 2200353 (Final Order entered March 25, 2011); *Negley v. Metropolitan Edison Company*, Docket No. C-2010-2205305 (Initial Decision dated January 3, 2011 became final without Commission action on March 3, 2011).

<sup>17</sup> 66 Pa.C.S. § 2807(f)(2)(i).

the Companies expect to install approximately 98.5% of all meters by mid-2019, with the remaining 1.5% of the meters being installed thereafter through December 31, 2022. The 1.5 % of the installations represent those installations that may require alternative communication solutions or difficult to reach locations such as remote hunting cabins.

As of the date of the evidentiary hearing, Penelec has not installed a smart meter at Complainant's service location.<sup>18</sup> With respect to the Company's deployment timeframe, Mr. Ahr explained that the Company cannot continue to manually read Complainant's meter because the Company will deploy smart meters for all its customers in Complainant's area served by Penelec. In fact, Company testimony established that after full deployment of smart meters, the Company will no longer employ meter readers.<sup>19</sup> The Company established at the hearing that currently, it sends out an employee to Complainant's residence for the sole purpose of reading only Complainant's meter due to the pendency of this proceeding.<sup>20</sup>

At the hearing, Complainant raised a broad challenge to the validity of Act 129. She referred to dialogue in the General Assembly's legislative history of Act 129 for her proposition that smart meter deployment is invalid. Complainant pointed to the Pennsylvania Legislative Journal of the Senate of Wednesday, October 8, 2008, in which Senators discussed House Bill 2200, which would eventually become the smart meter statute at 66 Pa.C.S. § 2806.1 *et seq.*<sup>21</sup> Complainant pointed to statements of Senators Tomlinson, Boscola, Ferlo and Fumo, containing their observations about the smart meter bill, and about the electric industry in general. It is noteworthy, however, that each of the Senators quoted by Complainant voted in favor of the passage of Act 129.<sup>22</sup>

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<sup>18</sup> Tr. 133.

<sup>19</sup> Tr. 126.

<sup>20</sup> Tr. 125.

<sup>21</sup> Complainant Exhibit D.

<sup>22</sup> Complainant Exhibit D, p. 2631. Pennsylvania Legislative Journal of Wednesday October 8, 2008, p. 2631.

Complainant also presented the Pennsylvania Legislative Journal of the House of Representatives that contains Representatives' discussion of smart meter legislation. Complainant points to statements of Representatives George, Metcalfe, and Thomas concerning smart meter legislation, and about the electric market in Pennsylvania.<sup>23</sup> Representative Metcalfe opposed the passage of smart meter legislation. Nevertheless, the legislation passed the House of Representatives' vote, with Representative George favoring the bill, Representative Metcalfe voting against the bill, and Representative Thomas abstaining.<sup>24</sup>

The final version of Act 129 that was signed into law by the Pennsylvania legislature does not contain a specific opt-out provision.

Complainant further raised an issue that she termed "Senatus Consultum."<sup>25</sup> Complainant explained that "senatus consultum" is when there "are three senators decreeing." And the Complainant defined senatus consultum as a decision or decree of the Senate having the force of law made without the concurrence of the people.<sup>26</sup> She explained that if two or more senators agree on a specific issue, that agreement becomes law.<sup>27</sup> Penelec asserts that Complainant's argument seems to refer to a Roman legal principle that allowed the Roman Senate to determine the legislative will of the population.<sup>28</sup> Complainant first described the term as meaning that if two or more senators agree on an issue, then the agreement becomes law.<sup>29</sup> Complainant later argued that the term Senatus Consultum implies that smart meter legislation

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<sup>23</sup> Complainant Exhibit E. Pennsylvania Legislative Journal, House of Representatives, Wednesday October 8, 2008; Session of 2008, 192D of the General Assembly No. 65.

<sup>24</sup> Complainant Exhibit E, p. 2327.

<sup>25</sup> Tr. 47.

<sup>26</sup> Tr. 47.

<sup>27</sup> *Id.*

<sup>28</sup> "Senatus Consultum. In Roman law. A decision or decree of the Roman senate, having the force of law, made without the concurrence of the people. These enactments began to take the place of laws enacted by popular vote, when the commons had grown so great in number that they could no longer be assembled for legislative purposes." Black's Law Dictionary 1526 (rev. 4<sup>th</sup> ed. 1968).

<sup>29</sup> Tr. 47.

could not become law unless 100 percent of the public favors the legislation.<sup>30</sup> In any event, Complainant's assertion that the passage of Act 129 required a unanimous consent of the Pennsylvania population is incorrect. Article II of the Pennsylvania Constitution provides that "[t]he legislative power of this Commonwealth shall be vested in a General Assembly, which shall consist of a Senate and a House of Representatives."<sup>31</sup> The enactment of a law in Pennsylvania, including Act 129, does not require a vote of the populace, much less a unanimous vote. Nor does it permit the creation of law by a mere agreement amongst two legislators.

Complainant's claim that there is an opt-out provision in Act 129 is based upon her interpretation of the statute and legislative history. Complainant's personal opinions or perceptions do not constitute evidence. Personal opinions, no matter how strongly held, do not constitute evidence.<sup>32</sup> Even a *pro se* complainant must provide relevant and necessary information.<sup>33</sup> Other than providing her personal interpretation of the statute, Complainant presented no credible or competent evidence to support her claim. More is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established.<sup>34</sup>

The Commission has ruled that there is no provision in the Code, the Commission's regulations or Orders that permit a Penelec customer to opt-out of smart meter installation. 66 Pa.C.S. § 2807(f); *See Frompovich v. PECO Energy Co.*, Docket No. C-2015-2474602 (Opinion and Order entered May 3, 2018). Moreover, the Commonwealth Court has held that federal law does not preempt the Commission's interpretation. *See Romeo v. Pa. Pub. Util. Comm'n*, 154 A. 3d 422 (Pa.Cmwlth. 2017).

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<sup>30</sup> Tr. 57.

<sup>31</sup> Commonwealth of Pennsylvania Constitution, Article II, Section 1.

<sup>32</sup> *Pa. Bureau of Corrections v. City of Pittsburgh*, 532 A.2d 12 (Pa. 1987).

<sup>33</sup> *Groch v. Unemployment Comp. Bd. of Review*, 472 A.2d 286 (Pa.Cmwlth. 1984); *Vann v. Unemployment Comp. Bd. of Review*, 494 A.2d 1081 (Pa. 1985).

<sup>34</sup> *Norfolk and Western Ry. v. Pa. Pub. Util. Comm'n*, 489 Pa. 109, 413 A.2d 1037 (1980); *Erie Resistor Corp. v. Unemployment Compensation Bd. of Review*, 194 Pa. Super. 278, 166 A.2d 96 (1960); *Murphy v. Pa. Dept. of Public Welfare, White Haven Center*, 85 Pa.Cmwlth. 23, 480 A.2d 382 (1984).

Based upon the statutory mandate and *stare decisis*, a Penelec customer's allegation that the installation of a smart meter is not mandated by the Code is without merit and, based upon the record evidence, Complainant's requested relief must be dismissed. Penelec must install a smart meter at the Service Location to remain in compliance with Chapter 28 of the Code, related Commission orders and its Commission-approved Revised Smart Meter Deployment Plan.

#### Inadequate or Unreasonable Service

Ms. Lamagna raised various health and safety concerns related to smart meters. In her complaint, Complainant averred that smart meters are unsafe, are vulnerable to cyber threats, are inferior in quality to analog meters and present serious health concerns, emit dirty electricity, and present various biological issues.

At the hearing, Complainant testified that smart meter technology raised privacy, security and safety issues. She testified that smart meters are susceptible to hacking and fraud. She also asserted that consent was required in order to install a smart meter upon a customer's request and in new construction.<sup>35</sup> Complainant also objected to the existence of an unregulated monopoly.<sup>36</sup> Complainant further testified that smart meters emit dirty electricity, and that they are digital so they cannot be turned off, but the utility has the ability to shut off an appliance in a customer's home at any given time.<sup>37</sup> Complainant also testified that there is a relationship to the use of smart meters and a high incident rate of fires.<sup>38</sup>

However, Complainant failed to provide any reliable and credible evidence in support of her allegations. By contrast, Penelec offered extensive expert testimony to rebut

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<sup>35</sup> Tr. 25-27.

<sup>36</sup> Tr. 46.

<sup>37</sup> Tr. 54-56.

<sup>38</sup> Tr. 77-79.

Complainant's allegations. Complainant failed to establish her burden of proof to show that the deployment of smart meters is unreasonable or constitutes inadequate utility service.

Pursuant to Section 1501 of the Code, public utilities have a duty to maintain safe, adequate and reasonable service and facilities and to make repairs, changes, and improvements that are necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public.

Complainant failed to demonstrate that the installation of a smart meter at her residence would constitute unreasonable or inadequate service under Section 1501.

Ms. Lamagna testified that a primary concern about the safety of smart meters is related to their emissions:

These smart meters are digital. They work 24/7. And there are--they are working 24/7. They are emitting the electricity, dirty electricity. They have the radiofrequency. They have the electromagnetic pulses. For 24/7, it's pulsating all the time. If it's digital, you can't turn it off. Digital means it's either on or off. These things are constantly going.<sup>39</sup>

In response to Complainant's concerns about smart meter emissions, Penelec presented the testimony of Michael Belanger, Itron's Senior Product Line Manager for Network Communications. Mr. Belanger was qualified as an expert in the area of design, operation, communication and technology associated with the Itron metering system.<sup>40</sup> Mr. Belanger testified that RF waves are emitted by nearly all commonly-used electronic devices.<sup>41</sup> Mr. Belanger testified each radio frequency transmission created by a smart meter signal is very

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<sup>39</sup> Tr. 54.

<sup>40</sup> *Id.* at 147.

<sup>41</sup> *Id.* at 150.

short in duration, lasting for approximately 150 milliseconds or 0.15 seconds. In a 24-hour period, the total transmission time for the average smart meter is just under three minutes.<sup>42</sup> In addition, the FCC coordinated with a number of other federal agencies in determining the maximum exposure limit.

The FCC's maximum permissible exposure limit for the Itron smart meter is 0.61 milliwatts per square centimeter for the 900 megahertz LAN radio in the Itron smart meter.<sup>43</sup> Mr. Belanger stated that, based on the average transmission duty cycle for the meters, the meters transmit less than one percent of the maximum permissible limit set by the FCC, or, more precisely, 0.8 percent of that FCC limit.<sup>44</sup> The study, "An Investigation of Radio Frequency Fields Associated with the Itron Smart Meter," concluded that the components of an Itron smart meter fall within acceptable FCC guidelines.<sup>45</sup> Advanced Compliance Solutions ("ACS"), an independent laboratory engaged by Itron to evaluate the radio frequency emissions from Itron smart meters, also found that the smart meter's 900 megahertz LAN radio was consistent with FCC requirements.<sup>46</sup>

Another optional smart meter component, the Zigbee radio, was also found to emit radio frequencies below the FCC's maximum permissible exposure limit. The Zigbee radio is an optional device, used only upon customer request, which can be enabled to communicate to local home area network devices, such as a programmable thermostat or a display device in the home.<sup>47</sup> The maximum permissible exposure limit applicable to the Zigbee radio is 1.00 milliwatts per square centimeter.<sup>48</sup> Mr. Belanger explained that the Zigbee radio, which

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<sup>42</sup> *Id.* at 149.

<sup>43</sup> *Id.* at 151-152.

<sup>44</sup> *Id.*

<sup>45</sup> Tr. 161.

<sup>46</sup> Penelec Exhibit Nos. 14, 15 and 16; Tr. 153-159.

<sup>47</sup> Tr. 152.

<sup>48</sup> *Id.* at 151-152.

transmits at 2.4 gigahertz, meets FCC regulations and emits far below the maximum permissible exposure limit.<sup>49</sup> ACS also found that the Zigbee radio component is fully compliant with FCC standards.<sup>50</sup>

Mr. Belanger summarized his findings regarding smart meter safety with the following example: assuming that a person stands only one foot from the smart meter, and that the smart meter is transmitting 100 percent of the day, the resulting radio frequency exposure to that person is less than one percent of the FCC's maximum exposure limit.<sup>51</sup> In actuality, Itron's smart meters only emit radio frequencies for three minutes per day, and customers are typically much farther away from a smart meter than one foot. At the more realistic distance of ten feet from the smart meter, the RF field diminishes to 100 times smaller, or about 0.008 percent of the maximum exposure limit.<sup>52</sup> Mr. Belanger concluded: "Because the exposure level was well below the maximum permissible exposure limit determined by the FCC, it is my expert opinion that the RF transmission[s] from the Itron smart meters are not harmful to the health of customers."<sup>53</sup>

Complainant also alleged that smart meters pose a risk of cybersecurity breach. Ms. Lamagna stated in her Complaint: "Analog meter I have currently has safety features. Smart meters do not....A smart meter is a computer device which is many times more vulnerable to cyber threats".<sup>54</sup> The Company presented the testimony of Scott Palmquist, Senior Product Manager of Itron for Smart Meter Grid Security and Networking, who was qualified as an expert in the area of advanced metering and network cybersecurity.<sup>55</sup> Mr. Palmquist described the

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<sup>49</sup> *Id.* at 156.

<sup>50</sup> Penelec Exhibit Nos. 14, 15 and 16; Tr. 153-159.

<sup>51</sup> Tr. 161.

<sup>52</sup> *Id.* at 161.

<sup>53</sup> *Id.* at 163-164.

<sup>54</sup> Complaint ¶ 4.

<sup>55</sup> Tr. 180.

cybersecurity protections involved in each layer of Penelec's smart meter network, which is composed of the home area network (HAN), local area network (LAN), regional area network (RAN), wide area network (WAN), and field area network (FAN).<sup>56</sup> The HAN is an optional network that allows qualified home devices to display home energy usage.<sup>57</sup> All smart meters are equipped with the LAN zone, which is the mesh network of smart meters under a field-deployed router.<sup>58</sup> The meters send their data to the field router, which in turn sends the data to the utility data center.<sup>59</sup> The next layer, the RAN, is a collection of many LANs.<sup>60</sup> The LAN and RAN zones utilize the same cybersecurity protections. Smart meters only respond to authorized commands from the utility data center and all smart meter data is encrypted.<sup>61</sup>

The WAN is the connection back to the utility data center for the smart meters in the LAN and RAN.<sup>62</sup> The WAN carries the encrypted meter traffic and adds an additional layer of encryption between the field router and the utility data center.<sup>63</sup> The smart meter traffic remains encrypted until it is processed by the utility head and data collection system.<sup>64</sup> Mr. Palmquist testified that Cisco's bidirectional communication FAN solutions are used throughout the Itron communication network.<sup>65</sup> The Cisco FAN solutions provide security controls that include hiding network addresses, authenticating devices, and an interface that monitors traffic flows and provides class of services for different priorities of traffic.<sup>66</sup> The

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<sup>56</sup> *Id.* at 184-188.

<sup>57</sup> *Id.* at 152, 182.

<sup>58</sup> *Id.* at 185.

<sup>59</sup> *Id.* at 185.

<sup>60</sup> *Id.* at 185-186.

<sup>61</sup> *Id.* at 186.

<sup>62</sup> *Id.* at 186-187.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.* at 187.

<sup>65</sup> *Id.* at 188.

<sup>66</sup> *Id.*

Cisco solutions reduce system vulnerability to physical or cyber-attack; provide operating resiliency against security disruptions; and provide highly secure access and data privacy for smart grid information.<sup>67</sup>

Mr. Palmquist further described the security protocols implemented in Penelec's smart meter system. He testified that Penelec's smart meter system meets the standards established by the National Institute of Standards and Technology (NIST), a nationally recognized authority on the cybersecurity of smart meters. Itron follows the smart meter guidance set forth in the publication NIST IR 7628.<sup>68</sup> NIST FIPS Publication 197 includes the encryption standard (Advanced Encryption Standard – AES) used by Itron smart meters.<sup>69</sup> He further testified that the North American Electric Reliability Corporation (NERC) has developed standards, known as critical infrastructure protection, which discuss various requirements for reliable generation and transmission of electricity.<sup>70</sup> Although NERC standards are not binding on Itron's smart meters, Itron's smart meters also adhere to NERC standards.<sup>71</sup>

Ms. Lamagna raised various vague concerns related to privacy.<sup>72</sup> Company witness Ahr responded to Complainant's concerns about privacy, testifying that the only information that is accessible to the Company through a smart meter is the customer's electricity use and how it increases or decreases over the course of a day.<sup>73</sup> He further noted that smart meters do not provide the Company with information about what appliances are being used or what is consuming electricity within the home, but only communicate total electric usage.

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<sup>67</sup> *Id.* at 188-189.

<sup>68</sup> *Id.* at 192.

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at 192-194.

<sup>72</sup> *Id.* at 25, 62, 66, 67, 69.

<sup>73</sup> *Id.* at 128.

The Company also presented its Commission-approved Privacy Policy. The Company's Privacy Policy explains the type of customer information that can be transmitted through smart meters and addresses the security protocols in place to protect against unauthorized access to a customer's usage information. The policy states that Penelec will not share sensitive customer information, including the customer's name, address, usage levels, Social Security number, driver's license number, employer identification number, date of birth, credit card number, passport number, or bank account number with third parties without the customer's consent.<sup>74</sup> The Privacy Policy explains the security protections in place when a customer's usage data is transmitted across the smart meter network. The smart meter network includes several security protections to prevent against the unauthorized access of a customer's usage data including encryption, firewalls, password protection and continuous security monitoring.<sup>75</sup>

Finally, Complainant's averment related to the fire risk of smart meters was based on information she purportedly heard on the news.<sup>76</sup> Complainant's source for this allegation was properly objected to and excluded as hearsay evidence.<sup>77</sup> To address Complainant's concerns on this issue, Company witness John Ahr responded that there is no evidence that the Company's smart meters pose a risk of fire.<sup>78</sup>

Despite failing to support her allegations with any reliable evidence, the Company still rebutted Complainant's allegations related to the Company's smart meters. Complainant failed to demonstrate that the installation of a smart meter at her residence would constitute unreasonable or inadequate service under Section 1501 of the Public Utility Code.

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<sup>74</sup> *Id.* at 127.

<sup>75</sup> *Id.* at 127-129; Penelec Exhibit 9.

<sup>76</sup> *Id.* at 79.

<sup>77</sup> *Id.* at 78-80.

<sup>78</sup> *Id.* at 116.

Complainant offered no evidence that the Privacy Policy and related smart meter privacy protections were unreasonable. Other than asserting general allegations related to unauthorized access to the smart meter network, Complainant failed to provide any testimony or other evidence establishing that the installation of a smart meter would constitute unreasonable service. The claims asserted by Complainant were based on what she has read from various sources. Lay witness testimony only carries evidentiary weight where the witness has actually perceived the situation, and the opinion is not based on scientific, technical or specialized knowledge.<sup>79</sup> Complainant did not establish that she has any personal knowledge or specialized training related to smart meters, cyber security, safety or related privacy issues. Accordingly, Complainant's testimony regarding these matters failed to support her claims that the installation of a smart meter violated any Commission rule, regulation or order, or that Respondent provided unreasonable or inadequate service.

Based upon the record evidence in this proceeding, Complainant's claims regarding privacy concerns as well as unreasonable or inadequate service are not supported by the evidence and must be dismissed.

Complainant attempted to offer testimony related to health and safety issues without any expert credentials on these issues. As a lay witness, Ms. Lamagna was not qualified to testify or offer exhibits related to any issues outside of her direct personal knowledge. All of the foregoing testimony and exhibits carry no evidentiary weight and, where applicable, were properly objected to and excluded.

According to Pennsylvania Rule of Evidence 701,<sup>80</sup> a lay witness is limited to giving opinion testimony that is rationally based on the witness's own perceptions. Specifically, Rule 701 provides as follows:

If a witness is not testifying as an expert, testimony in the form of an opinion is limited to one that is:

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<sup>79</sup> Pa.R.E. 701.

<sup>80</sup> Pa.R.E. 701.

- (a) rationally based on the witness's perception;
- (b) helpful to clearly understanding the witness's testimony or to determining a fact in issue; and
- (c) not based on scientific, technical, or other specialized knowledge within the scope of Rule 702.

Pa.R.E. 701.

In this case, the majority of Complainant's testimony and proposed exhibits related to issues outside the scope of her personal knowledge and were based on hearsay. All such testimony and exhibits were properly excluded upon objection. To the extent such testimony was not objected to, such testimony cannot support Complainant's burden of proof in this proceeding.

#### Termination of Service

On May 30, 2017, Complainant was sent a 10-day service termination letter.

If the Commission denies and dismisses this Complaint, Penelec will have a legal right to initiate termination procedures if it is denied reasonable access to the Company's meter per the Commission's Regulations and Chapter 14 of the Public Utility Code.<sup>81</sup>

It is well-settled that where a customer refuses a utility access to its meter, the utility may terminate service after required notice is provided. The Commission's Regulations, at 52 Pa.Code § 56.81(3), provide, in pertinent part, the following:

A public utility may notify a customer and terminate service provided to a customer after notice as provided in §§ 56.91-56.100 (relating to notice procedures prior to termination) for any of the following actions by the customer . . . Failure to permit access to meters, service connections or

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<sup>81</sup> 66 Pa.C.S. § 1406(a)(4); 52 Pa.Code § 56.81(3).

other property of the public utility for the purpose of replacement, maintenance, repair or meter reading.<sup>82</sup>

Additionally, the Commission held in *Frompovich*,

Based on our adjudication of Ms. Frompovich's claims herein, we find that PECO's proposed termination of electric service to the Complainant's service address for the Complainant's refusal to permit PECO access to its meter, so that PECO's employees can replace the existing AMR meter with an AMI meter, to be consistent with and authorized under Section 1501 of the Code, the Commission's Regulations at 52 Pa. Code § 56.81(3), and the Company's Tariff. We remind PECO, however, that prior to taking any steps related to such termination of service, it must adhere to the applicable provisions of the Commission's Regulations relating to Notice Procedures Prior to Termination at 52 Pa. Code §§ 56.91-100. In the applicable written notice(s) required under the Commission's Regulations, PECO is requested to inform or instruct Ms. Frompovich as to how she may avoid termination related to the meter.

*Frompovich* at 59. Accordingly, given this precedent, I find in favor of Penelec on this issue.

### CONCLUSION

Penelec presented extensive expert testimony in support of its position that its smart meter deployment is safe, reasonable and adequate. Complainant, on the other hand, failed to present any credible or relevant evidence to support her allegations that smart meter deployment is unsafe or violates Section 1501 of the Public Utility Code. In view of Complainant's failure to support her position or to meet her burden of proof, the Complaint must be denied and dismissed with prejudice.

### CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the parties and the subject matter in this proceeding. 52 Pa.C.S. § 331; 66 Pa.C.S. §§ 102, 107, 1501, 701.

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<sup>82</sup> 52 Pa.Code § 56.81(3).

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

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

4. In AMI meter-related matters, the Commission has held that “[t]he Complainant will have the burden of proof during the proceeding to demonstrate, by a preponderance of the evidence, that [the utility] is responsible or accountable for the problem described in the Complaint.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064, p. 18 (Order entered Sept. 3, 2015).

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

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

7. When presented with a challenge to an AMI meter installation, the Commission has pronounced that “[t]he ALJ’s role . . . will be to determine based on the record

in this particular case, whether there is sufficient evidence to support a finding that Complainant was adversely affected by the smart meter or whether [the utility's] use of a smart meter will constitute unsafe or unreasonable service in violation of Section 1501 under the circumstances in this case.” *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064, p. 23 (Order entered Jan. 28, 2016) (citation omitted).

8. To satisfy her burden of proof, Complainant must demonstrate that the utility violated the Public Utility Code or a regulation or order of the Commission. 66 Pa.C.S. § 701. This must be shown by a preponderance of the evidence. *Patterson v. Bell Telephone Company of Pennsylvania*, 72 Pa. PUC 196 (1990).

9. Upon the presentation by Complainant of evidence sufficient to initially satisfy the burden of proof, the burden of going forward with the evidence, sometimes called the burden of persuasion, to rebut the evidence of Complainant shifts to Respondent. If the evidence presented by Respondent is of co-equal weight, Complainant has not satisfied the burden of proof. Complainant now has to provide some additional evidence to rebut the evidence of Respondent. *Burleson v. Pa. Pub. Util. Comm'n*, 443 A.2d 1373 (Pa.Cmwlth. 1982), *aff'd*, 501 Pa. 433, 461 A.2d 1234 (1983).

10. While the burden of persuasion may shift back and forth during a proceeding, the burden of proof never shifts. The burden of proof always remains on the party seeking affirmative relief from the Commission. *Milkie v. Pa. Pub. Util. Comm'n*, 768 A.2d 1217 (Pa.Cmwlth. 2001).

11. Assertions, personal opinions or perceptions do not constitute evidence. *Pa. Bureau of Corrections v. City of Pittsburgh*, 532 A.2d 12 (Pa. 1987).

12. A public utility is required to provide adequate, efficient, safe and reasonable service. 66 Pa.C.S. §§ 102 and 1501.

13. There is no specific provision in the Code, the Commission's regulations or orders that provides that an electric distribution customer may opt-out of smart installation. *Povacz v. PECO Energy Company*, Docket No. C-2012-2317176 (Opinion and Order entered January 24, 2013).

14. Act 129 of 2008, 66 Pa.C.S. § 2806.1 *et seq.*, required electric distribution companies to file smart meter technology procurement and installation plans with the Commission for approval. 66 Pa.C.S. § 2807(f).

15. A utility may issue written notice of termination to a customer if a customer does not permit access to meters, service connections or other property of the public utility for the purpose of replacement, maintenance, repair or meter reading, including the installation of an AMI meter. 66 Pa.C.S. § 1406(a)(4); 52 Pa.Code § 56.81(3).

16. Complainant has failed to carry her burden of proof establishing that Penelec violated the Public Utility Code or a regulation or order of the Commission in requiring installation of a smart meter at Complainant's property. 66 Pa.C.S. § 332.

17. Complainant has failed to carry her burden of proof establishing that Penelec provided unsafe or unreasonable service in violation of 66 Pa.C.S. § 1501.

18. Any testimony of a lay witness related to technical or specialized knowledge should be excluded and given no evidentiary weight. *Gibson v. W.C.A.B.*, 861 A.2d 938, 947 (Pa. 2004).

