IN THE SUPREME COURT OF PENNSYLVANIA

Docket Nos. 37-39 MAP 2021
Consolidated With
Docket Nos. 34-36 MAP 2021 and Docket Nos. 40-45 MAP 2021

MARIA POVACZ, LAURA SUNSTEIN MURPHY AND
CYNTHIA RANDALL AND PAUL ALBRECHT

v.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PRINCIPAL BRIEF FOR APPELLANT PECO ENERGY COMPANY

On Petition for Allowance of Appeal Granted May 12, 2021, at 622-624 MAL 2020 from Opinion and Order of the Commonwealth Court of Pennsylvania Entered October 8, 2020, at Nos. 492, 606 and 607 C.D. 2019 that, in Part, Affirmed, Vacated, Reversed and Remanded Orders of the Pennsylvania Public Utility Commission Entered March 28, 2019 at Docket No. C-2015-2475023 and May 9, 2019 at Docket Nos. C-2015-2475726 and C-2016-2537666

Anthony E. Gay, General Counsel
Jack R. Garfinkle, Associate General Counsel
Ward L. Smith, Assistant General Counsel
PECO Energy Company
2301 Market Street, S23-1
Philadelphia, PA 19103
215.841.4635

Kenneth M. Kulak
Anthony C. DeCusatis
MORGAN, LEWIS & BOCKIUS LLP
1701 Market Street
Philadelphia, PA 19103
215.963.5384

Counsel for Appellant, PECO Energy Company

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I. INTRODUCTION AND OVERVIEW

These consolidated appeals arose from three complaints filed by customers of PECO Energy Company ("PECO" or "the Company") who have "sincere concerns" that the installation of smart meters used by PECO throughout its service territory will cause them to suffer adverse health effects.

These smart meters – which PECO is required to install under provisions of the Pennsylvania Public Utility Code and implementation orders of the Pennsylvania Public Utility Commission ("PUC" or "Commission") in place for more than a decade – provide bidirectional communications required by statute using radio frequency ("RF") transmissions that are far below limits for RF emissions established by the Federal Communications Commission ("FCC"). Despite the fact that each customer failed to present a prima facie case that the installation of a PECO smart meter was unsafe or unreasonable (*see* Sections VI.D. and E., *infra*), the Commission carefully considered the customers' evidence, as well as the evidence and reasonable accommodations offered by PECO, and properly rejected the customers' claims.

In 2008, the General Assembly enacted legislation, signed by then-Governor Edward G. Rendell, adding Sections 2807(f) and (g)[1] to the Pennsylvania Public

[1] 66 Pa.C.S. §§ 2807(f) and 2807(g).

Utility Code.[2] Section 2807(f)(1) imposed a nine-month deadline for electric distribution companies ("EDCs") to file "a smart meter technology procurement and installation plan" for approval by the Commission.[3] Sections 2807(f)(2) and (f)(2)(iii) directed that EDCs "shall furnish smart meter technology . . . in accordance with a depreciation schedule not to exceed 15 years."[4]

In 2009, the Commission issued a general implementation order determining, among other things, that Section 2807(f) requires "system-wide deployment" of smart meters by EDCs. Subsequently, after public notice and hearings, the Commission issued orders approving PECO's plan to spend $750 million to procure and deploy Advanced Metering Infrastructure ("AMI") technology, including smart meters, for the approximately 1.6 million electric customers throughout its service territory.

The AMI technology approved in PECO's smart meter plan replaced PECO's existing Automatic Meter Reading ("AMR") system installed before 2003. The

[2] 66 Pa.C.S. §§ 101 *et seq*. Hereafter, a "section" will refer to a section of the Pennsylvania Public Utility Code ("Code") unless stated or the context indicates otherwise.

[3] Section 2807(f)(6) exempts EDCs with 100,000 or fewer customers from Section 2807(f)(2). Non-exempt EDCs comprise all major EDCs in Pennsylvania. Hereafter, when used in the context of Section 2807(f)'s smart meter requirements, "EDCs" shall mean non-exempt EDCs.

[4] Section 2807(g) defines "smart meter technology" in terms of its functional requirements, which include "metering technology and network communication capable of bidirectional communication" that can "support the automatic control of the customer's electricity consumption."

AMR system also used wireless low-power RF transmissions[5] to transfer data from customers' meters to microcell controllers and cell towers[6] but lacked the advanced functionality Section 2807(g) requires.

In Phase I of its smart meter plan, PECO completed the design, procurement and build-out of its "backbone" AMI system[7] and installed an initial tranche of approximately 600,000 smart meters. By 2017, PECO had shut down its legacy AMR system because it had completed universal AMI deployment (Phase II of its plan), except where a few customers, including Complainants, refused to allow the Company to install the required smart meters.

Maria Povacz, Laura Sunstein Murphy, Cynthia Randall, and Paul Albrecht ("Complainants") filed complaints against PECO at the PUC in 2015 and 2016. The proximate cause of the complaints was PECO's notice that Complainants' refusal to allow the Company to install a smart meter would justify terminating their electric service under the PUC-approved terms of service in PECO's Electric Service Tariff.[8]

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[5] RF transmissions from both AMR and AMI (smart) meters reside in the low-intensity portion of the electromagnetic spectrum and the terms "electromagnetic fields" (or "EMF") and "RF" were used interchangeably in the proceedings below.

[6] *See* PECO Exhibit GP-1 accompanying PECO Statement No. 2 at PUC Docket No. C-2015-2475726 (showing the principal components of the legacy AMR system). R.1596-97a

[7] *See* PECO Exhibit GP-2 accompanying PECO Statement No. 2 at PUC Docket No. C-2015-2475726 (showing the principal components of the AMI system). R.1598-99a

[8] Electric utilities are required to adhere to the terms of their Commission-approved tariffs. *See* Section 1303. *see also Brockway Glass Co. v. Pa. P.U.C.*, 437 A.2d 1067 (Pa. Cmwlth. 1981) and *Zucker v. Pa. P.U.C.*, 401 A.2d 1377 (Pa. Cmwlth. 1979) (tariff rules have "the force and effect of law.").

However, underlying all the complaints were averments that Complainants believed smart meters cause adverse health effects and, therefore are not "safe," and that universal deployment is not "reasonable" for any customers harboring such concerns.[9] The Complainants alleged that installing smart meters at their homes would violate Section 1501's requirement that public utilities "furnish and maintain adequate, efficient, safe, and reasonable service and facilities," and they requested an unqualified, blanket exemption from Section 2807(f)'s mandate of universal smart meter deployment.

PECO answered by averring, *inter alia*, that its smart meters do not cause adverse health effects and are far below the limit for RF emissions adopted by the FCC, which is the federal agency authorized to establish safety standards for RF transmissions.[10] Additionally, Section 1501 provides that a public utility's service and facilities "shall be in conformity with the regulations and orders of the commission," which include the PUC's implementation order directing "system-wide" installation of smart meters.

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[9] Appellee Povacz alleged severe sensitivity to EMF and Appellee Murphy alleged that she suffered from medical conditions that made her uniquely susceptible to the effects of EMF. Appellee Randall/Albrecht alleged generalized concerns about possible adverse health effects they believed could be caused by RF transmissions.

[10] *See Farina v. Nokia*, 578 F. Supp. 2d 740, 763 and 769 (E.D. Pa. 2008) (holding the FCC has responsibility for creating safety standards for RF emissions under the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-35, and dismissing a putative class action because the class allegations "unquestionably trample upon the FCC's authority to determine the maximum standard for RF emissions.").

PECO offered the Complainants a reasonable accommodation to allay their concerns. Rules 3.2 and 3.4 of PECO's tariff, which predate the enactment of Section 2807(f), allow customers to choose where to locate their meter board and meter socket to accept a Company-supplied meter. The meter board/socket need not be affixed to, or located near, a customer's house and can be placed some distance away. Radio waves lose strength very quickly as they travel outward from their source.[11] While PECO's smart meter RF fields are already well below FCC-approved limits, moving a smart meter 30 feet decreases the smart meter's RF fields by 100 times.[12] Complainants rejected the proffered accommodation because the only outcome acceptable to Complainants is the installation of a meter that does not use RF transmission.

The Commission held hearings to allow the Complainants to present evidence to justify their belief that low-power RF transmissions from smart meters are "unsafe" and to support their argument that customers' subjective concerns that smart meters cause adverse health effects should be sufficient to exempt them from smart meter installation. PECO presented extensive expert evidence that the options to smart meter RF transmission that the Complainants suggested were either technically infeasible, not commercially available, would not satisfy the functional

[11] PECO Statement No. 2 at PUC Docket No. C-2015-2475726, p. 11. R.1594a

[12] *Id.*

requirements specified in Section 2807(g) or would cost billions of dollars to implement (if they could be implemented at all).[13]

In 2019, the Commission entered three unanimous orders denying the complaints.[14] The PUC meticulously reviewed the evidentiary record and applied the same standard of proof it used for over 25 years to assess claims of adverse health effects from EMF produced by electric power lines. The Commission found the testimony of Complainants' expert was not "an unequivocal opinion to a reasonable degree of certainty that the low-level RF fields from a PECO smart meter will adversely affect [Complainants'] health."[15] The PUC also found that PECO's experts furnished a point-by-point refutation of the theories espoused by Complainants' witnesses.[16] Accordingly, the Commission concluded that Complainants failed to carry their statutorily imposed burden of proving that smart meters are "unsafe."

The PUC also found that PECO's tariff provides a reasonable accommodation to customers who harbor concerns about smart meters' RF transmissions notwithstanding the scientific consensus and the FCC's conclusion that such

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[13] PECO Statement No. 2 at PUC Docket No. C-2015-2475726, pp. 8-10. R.1591-93a

[14] *Maria Povacz v. PECO Energy Co.*, Docket No. C-2015-2475023 (Mar. 28, 2019) ("*Povacz Order*") R.23a; *Laura Sunstein Murphy v. PECO Energy Co*., Docket No. C-2015-2475726 (May 9, 2019) ("*Murphy Order*") R.127a; *Cynthia Randall and Paul Albrecht v. PECO Energy Co.*, Docket No. C-2016-2537666 (May 9, 2019) ("*Randall/Albrecht Order*") R.230a.

[15] *Murphy Order*, p. 66. R.195a. *See also id*., pp. 41-42 and 77. R.170a-71a and 206a

[16] *See, e.g.*, *id.*, pp. 73-83. R.202a-12a.

concerns are not justified.[17] The record evidence shows that even at a distance of only one meter, smart meter RF transmissions are below the FCC's limits and are essentially the same as "background" levels. The proposed accommodation of moving a smart meter farther away greatly diminishes even that miniscule level of RF emissions.[18] Accordingly, the Commission held that universal deployment without an individual customer "opt-out" was not "unreasonable" for Complainants or others with similar concerns.

Complainants appealed the PUC's Orders to Commonwealth Court, where the appeals were consolidated. The court's majority Opinion (the "Opinion")[19] affirmed that the PUC used the correct evidentiary standard to assess the safety of smart meters and that the evidence presented by Complainants was not sufficient to support a finding that smart meters are unsafe.[20] The Opinion also affirmed the PUC's determination that installation of smart meters does not violate customers' "substantive" due process rights protected by the Constitutions of the United States and Pennsylvania.[21]

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[17] *Povacz Order*, p. 95. R120a.; *Murphy Order*, p. 91. R.220a; *Randall/Albrecht Order*, p. 86. R.318a.

[18] *See* PECO Statement No. 3 at Docket No. C-2015-2475726, pp. 16-18, and accompanying PECO Exhibits CD-2 through CD-8. R.1622a-1624a and 1634a-50a.

[19] *Povacz et al v. Pa. P.U.C.*, 241 A.3d 481 (Pa. Cmwlth., Oct. 8, 2020). (Hereafter, Opinion page references are the reported case.)

[20] Opinion, p. 494 ("We affirm the PUC's findings of fact as based on substantial evidence.")

[21] Opinion, pp. 487-488.

However, the court ignored or misapprehended the Commission's finding that PECO had offered Complainants a "reasonable accommodation." As a result, the court remanded the cases for the PUC to assess whether, despite smart meters being "safe," universal deployment without some "accommodation" is "unreasonable."

Because the court misread the PUC's Orders as holding that the Commission lacks authority to consider reasonable accommodations and ignored the PUC's finding that meter relocation is a reasonable accommodation, the court engaged in a search for an interpretation of Section 2807(f) that might provide authority for accommodations that the Commission had already considered. That search led the court to effectively reverse the PUC's 2009 determination that Section 2807(f) requires universal deployment and read in an unqualified, blanket authorization for customers to refuse the installation of a smart meter and demand another kind of meter even where the customers cannot show that the smart meter would jeopardize safe and reasonable service under Section 1501.[22]

II. STATEMENT OF JURISDICTION

Jurisdiction is conferred on the Supreme Court of Pennsylvania by 42 Pa.C.S. § 724(a) and Pennsylvania Rules of Appellate Procedure ("Pa.R.A.P.") No. 1112.

[22] *See* Concurring and Dissenting Opinion, 241 A.3d at 497 ("[I]t is not this Court's role to create an opt-out provision where none exists statutorily.")

III. ORDER IN QUESTION

On October 8, 2020, the Commonwealth Court issued its Opinion at Docket Nos. 492, 606 and 607 C.D. 2019, which was reported at 241 A.3d 481. Copies of the Opinion and the Concurring and Dissenting Opinion are attached in reported form as Appendix A. Because the three PUC Orders reversed by the Opinion are voluminous (totaling over 300 pages), they are included in the Reproduced Record.

The Commonwealth Court Order that is the basis of this appeal states as follows:

> AND NOW, this 8th day of October, 2020, the orders of the Pennsylvania Public Utility Commission (PUC) are AFFIRMED in part, REVERSED in part, and VACATED in part, as follows:
>
> 1. The PUC's rejection of the constitutional challenge of Maria Povacz, Laura Sunstein Murphy, Cynthia Randall, and Paul Albrecht (jointly, Consumers) is AFFIRMED.
>
> 2. The PUC's conclusion that it lacks authority to accommodate Consumers' desire to avoid radiofrequency (RF) emissions from smart meters is REVERSED. This matter is REMANDED to the PUC for consideration of Consumers' requests for accommodations and determinations of what, if any, accommodations are appropriate for each individual Consumer. The PUC on remand may consider all reasonable accommodations, including deactivation of the RF emitting functions of smart meters at Consumers' homes; installation of the smart meters at locations remote from Consumers' homes; or installation of wired rather than wireless smart meters, if (as Consumers contend) such technology is available.
>
> 3. The PUC's determination that Consumers' requested accommodations would not be reasonable is VACATED,

and this matter is REMANDED for application of the correct burden of proof. On remand, Consumers need not prove that mandatory installation of smart meters is both unsafe and unreasonable; rather, Consumers need only prove that mandatory installation of smart meters is either unsafe or unreasonable.

4. The PUC's determination that Consumers failed to meet their burden to prove unreasonableness is VACATED. Because the PUC's determination was based on its conclusion that the 2008 amendment to the Public Utility Code, known as Act 129, Act of October 15, 2008, P.L. 1592, 66 Pa. C.S. § 2807, does not allow accommodations, this issue is REMANDED for further consideration. Further, on remand, the PUC should balance the parties' interests and consider whether refusal of accommodations was unreasonable without proof of actual harm to Consumers.

5. The PUC's determination that in order to prove lack of safety of the smart meters (as opposed to lack of reasonableness in refusal of accommodations by PECO Energy Company (formerly the Philadelphia Electric Company)), Consumers had to show a conclusive causal connection between RF exposure and adverse health effects is AFFIRMED.

6. The PUC's findings of fact on the safety of smart meters are AFFIRMED.

Consumers' applications for relief in the form of motions to strike the PUC's letter notice of the Federal Communications Commission's November 27, 2019 order declining to propose amendment of its RF emission standards are DENIED as moot.

Jurisdiction is relinquished.

/s/_____
ELLEN CEISLER, Judge

IV. STATEMENT OF SCOPE AND STANDARD OF REVIEW

A. Scope Of Review

Judicial review of PUC orders is limited to determining whether the Commission's findings and conclusions are supported by substantial evidence, whether there was an error of law and whether there was a violation of constitutional rights.[23] Absent such an error, the PUC's decision must be affirmed.[24]

B. Standard Of Review

Standard of review refers to how an appellate court should examine the issues within its scope of review to determine if the Commission committed reversible error.[25]

As to issues of law, such as statutory construction, an appellate court's review is *de novo*.[26] However, this Court has held that because the Legislature delegated to the Commission the authority to administer a "technically complex" statutory scheme, the PUC's interpretation of the Code should be sustained if it is reasonable and not "clearly erroneous."[27]

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[23] *Popowsky v. Pa. P.U.C.*, 937 A.2d 1040, 1054 (Pa. 2007); *Popowsky v. Pa. P.U.C.*, 665 A.2d 808, 809 (Pa. 1995). *See* 2 Pa.C.S. § 704.

[24] *Popowsky v. Pa. P.U.C.,* 665 A.2d at 809.

[25] *See Morrison v. Commonwealth of Pa. Dep't of Pub. Welfare*, 646 A.2d 565, 570 (Pa. 1994) (Standard of review "refers to the manner in which (or 'how') [the court's] examination is conducted" or the "degree of scrutiny" that is to be applied.).

[26] *Snyder Bros. v. Pa. P.U.C.*, 157 A.3d 1018, 1071 (Pa. 2018).

[27] *Popowsky v. Pa. P.U.C.*, 706 A.2d 1197, 1203 (Pa. 1997). *Accord Popowsky v. Pa. P.U.C.*, 937 A.2d at 1050 n.17.

In reviewing a factual determination of the Commission, an appellate court should "determine only whether or not the PUC's findings are supported by substantial evidence."[28] Therefore, an appellate court "may not substitute [its] judgment for that of the PUC" nor may it "'indulge in the processes of weighing the evidence and resolving conflicting testimony.'"[29]

Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion."[30] This Court has held that its review must focus on "whether there is rational support in the record, when viewed as a whole, for the agency action" and, in order to reverse, it must find that the agency's findings are "totally without support in the record."[31]

V. QUESTIONS PRESENTED FOR REVIEW

By its Order of May 12, 2021, this Court granted Petitions for Allowance of Appeal filed by PECO (622-624 MAL 2020) and the PUC (619-621 MAL 2020).[32]

The Court granted review of one Question Presented by PECO's Petition:

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[28] *Popowsky v. Pa. P.U.C.*, 706 A.2d at 1201, quoting *Philadelphia Elec. Co. v. Pa. P.U.C.*, 433 A.2d 620, 624 (Pa. Cmwlth. 1981).

[29] *Id. Accord Barasch v. Pa. P.U.C.*, 490 A.2d 806, 809 (Pa. 1985).

[30] *Norfolk & Western Ry. Co. v. Pa. P.U.C.*, 413 A.2d 1037, 1047 (Pa. 1980); .

[31] *Republic Steel Corp. v. Workmen's Comp. Appeal Bd.*, 421 A.2d 1060, 1062-63 (Pa. 1980). *See also Emporium Water Co. v. Pa. P.U.C.*, 955 A.2d 456, 463 (Pa. Cmwlth. 2008).

[32] The same Order granted Cross-Petitions for Allowance of Appeal (663-668 MAL 2020) limited to one of the Questions Presented by Appellee. Pursuant to Pa.R.A.P. 2136(b), PECO will address that question in its second brief.

1. Did the Commonwealth Court err when it concluded that Act 129 allows individual Consumers to reject or "opt-out" of smart meter technology, on the grounds that Act 129 requires that the "Electric distribution companies shall furnish smart meter technology," Webster's Dictionary defines "furnish" as meaning "to provide with what is needed; . . . supply, give," and this definition of "furnish" does not imply that the recipient is forced to accept that which is offered?

Answered in the negative by the Commonwealth Court.

The Court granted review of three Questions Presented by the PUC's Petition:

1. Did the Commonwealth Court commit an error of law by concluding that the statute does not mandate universal deployment of smart meters, which is contrary to the plain and unambiguous statutory language of Section 2807(f)(2) of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 2807(f)(2)?

Answered in the negative by the Commonwealth Court.

2. On a question of first impression involving Act 129's smart meter deployment mandate, did the Commonwealth Court abuse its discretion by interpreting the Public Utility Code in a manner that violated the rules of statutory construction and disregarded the legislative intent of the General Assembly?

Answered in the negative by the Commonwealth Court.

3. Did the Commonwealth Court commit an error of law by articulating a burden of proof under Section 1501 of the Pennsylvania Public Utility Code that

could result in a utility being found in violation of the Code without evidence of harm?

Answered in the negative by the Commonwealth Court.

Reduced to their essence, the Questions Presented for review present two principal issues: (1) PECO Question 1 and PUC Questions 1 and 2 raise issues of statutory interpretation, specifically, whether the Commonwealth Court erred in ruling that "furnish" means "offer" and, therefore, Complainants have an unqualified right to block the installation of a smart meter by refusing what is "offered" and expressing their preference not to have such a meter. (2) PUC Question 3 inquires whether the Commonwealth Court was correct that the Commission did not reach a conclusion regarding the "reasonableness" of smart meters even though the Commission found that the Complainants' subjective "concerns" about "harm" from the installation of smart meters were not supported by substantial evidence.

PECO's Argument is organized around those two overarching issues.

VI. STATEMENT OF THE CASE

A. Section 2807(f) And Its Implementation By The Commission

Section 2807(f) was added to the Code by Act 129 of 2008 ("Act 129").[33] Section 2807(f) provides, in parts relevant to this appeal, as follows:

[33] Act of Oct. 15, 2008, P.L. 1592, No. 129. Act 129 followed the enactment of the Energy Independence and Security Act of 2007, in which Congress declared that it is the policy of the

> **(f) Smart meter technology and time of use rates. —**
>
> (1) Within nine months after the effective date of this paragraph, electric distribution companies shall file a smart meter technology procurement and installation plan with the commission for approval. The plan shall describe the smart meter technologies the electric distribution company proposes to install in accordance with paragraph (2).
>
> (2) Electric distribution companies shall furnish smart meter technology as follows:
>
> (i) Upon request from a customer that agrees to pay the cost of the smart meter at the time of the request.
>
> (ii) In new building construction.
>
> (iii) In accordance with a depreciation schedule not to exceed 15 years.

The General Assembly delegated authority to implement Section 2807(f) to the PUC by requiring Commission approval of each EDC's "smart meter technology procurement and installation plan." Accordingly, on March 30, 2009, the Commission opened a state-wide docket to determine what an EDC's plan should contain in order to comply with Section 2807(f) and satisfy the functional requirements for "smart meter technology" in Section 2807(g), which provides:

> **(g) Definition.—** As used in this section, the term "smart meter technology" means technology, including metering technology and network communications technology capable of bidirectional communication, that records electricity usage on at least an hourly basis, including related electric distribution system upgrades to enable the technology. The technology shall provide customers with

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United States to support grid modernization, including the deployment of smart technologies for metering. *See* 42 U.S.C. § 17381.

> direct access to and use of price and consumption information. The technology shall also:
>
> (1) Directly provide customers with information on their hourly consumption.
>
> (2) Enable time-of-use rates and real-time price programs.
>
> (3) Effectively support the automatic control of the customer's electricity consumption by one or more of the following as selected by the customer:
>
> (i) the customer;
> (ii) the customer's utility; or
> (iii) a third party engaged by the customer or the customer's utility.

The Commission solicited and obtained extensive written comments from a wide array of stakeholders. After carefully evaluating those comments, the Commission issued its Smart Meter Procurement and Installation Implementation Order ("Implementation Order") on June 24, 2009.[34] The Implementation Order addressed the three prongs of Section 2807(f)(2)'s directive that EDCs "shall furnish smart meter technology." The PUC determined that the third prong ("in accordance with a depreciation schedule not to exceed 15 years") expresses the requirement that a "fully functional smart meter"[35] must be installed for all customers of an EDC:

> **4. System-Wide Deployment**
>
> The Commission believes that it was the intent of the General Assembly to require all covered EDCs to deploy smart meters system-wide when it included a requirement

[34] *Smart Meter Procurement and Installation*, Docket No. M-2009-2092655 (June 24, 2009) (R.419a *et seq*.).

[35] Implementation Order, p. 6. R.624a.

> for smart meter deployment "in accordance with a depreciation schedule not to exceed 15 years." It is this system-wide deployment that will provide the foundation for the EDCs' smart meter installation plans. Therefore, it is crucial for the EDCs to develop a plan that will best meet the needs of their service territory, while at the same time operating in a manner that is both cost and time effective.
>
> The EDCs shall detail their system-wide deployment plans to the Commission, including any type of tiered rollout the company proposes, as well as the associated costs and benefits incurred from such a rollout. This system-wide plan should also incorporate a coordination element with the new construction deployment component.

PECO made decisions about the design, development, procurement and implementation of its smart meter technology based on the PUC's findings, conclusions and directives in the Implementation Order.[36]

B. PECO's Smart Meter Procurement And Implementation Plan

On August 24, 2009, PECO filed a Petition for Approval of its Smart Meter Procurement and Installation Plan proposing a two-phase process to achieve universal deployment. In Phase I, PECO would spend an estimated $313 million to research and select smart meter technology; implement a Meter Data Management System; test and validate its chosen smart meter technology; construct the AMI communications network to receive transmissions from, and send instructions to, smart meters; and deploy an initial tranche of 100,000 to 600,000 smart meters.

[36] PECO Statement No. 2 at Docket No. C-2015-2475726. R.1584a

PECO's 2009 Petition generated litigation with multiple parties and an eventual settlement.[37] The PUC approved the settlement and authorized PECO to proceed with its plan.[38]

PECO implemented Phase I over the next several years.[39] On January 18, 2013, the Company filed a Petition for Approval of its Smart Meter Universal Deployment Plan seeking authority to accelerate universal deployment (Phase II). PECO's analysis showed that acceleration would save customers $58 million by reducing the time (and, therefore, the cost) to run its legacy AMR system in parallel with its new AMI system.

PECO's 2013 Petition also initiated extensive litigation, with a settlement again achieved and approved by the Commission.[40] In April 2017, PECO materially completed its Universal Deployment Plan.

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[37] Litigants included the Office of Consumer Advocate, the Office of Small Business Advocate, the Department of Environmental Protection ("Pa. DEP"), the Clean Air Council, Constellation NewEnergy, Inc., Pennsylvania Association of Community Organizations for Reform Now (ACORN) and the Philadelphia Area Industrial Energy Users Group.

[38] *Petition of PECO Energy Company for Approval of Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2009-2123944 (May 6, 2010).

[39] PECO's Phase I plan was supported by the United States Department of Energy, which provided a $140 million grant under its Smart Grid Investment Grant program designed to accelerate the modernization of the nation's electric systems by, among other measures, facilitating deployment of AMI technology. *See Recovery Act: Smart Grid Investment Grant Program* (available at *www.smartgrid.gov/recovery_act/overview/smart_grid_investment_grant_program.html*).

[40] *Petition of PECO Energy Company for Approval of Its Smart Meter Universal Deployment Plan*, Docket No. M-2009-2123944 (Aug. 15, 2013).

C. The Commission Allows Evidentiary Hearings To Consider Accommodations For Complainants Expressing Concerns About Smart Meter Installations

As it implemented its plan, PECO (like other EDCs) encountered customers who refused the installation of a smart meter and filed complaints objecting to universal deployment. The complaints generally were dismissed via dispositive motions on the grounds that Section 2807(f) requires universal deployment, does not provide a blanket "opt out" exemption for customers opposed to smart meters and, therefore, complainants did not state a claim for which relief could be granted.

In *Kreider v PECO Energy Company*,[41] a complainant alleged a violation of PECO's duty under Section 1501 to furnish "safe and reasonable" service because she would suffer "deleterious health effects" if a smart meter were mounted on an exterior wall near her bedroom. The Commission ruled that the complainant was entitled to an evidentiary hearing and, if she met her burden of proof on the health issue,[42] PECO could be required to make reasonable accommodations: "It may be possible, for example, for [PECO] 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

[41] *Kreider v PECO Energy Company*, P-2015-2595064 (Jan. 28, 2016). (A copy the Opinion and Order is attached as Appendix B.)

[42] *Id.*, p. 22. ("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." (Citations omitted.))

meter at this Complainant's home."[43] The Commission held that accommodations should be considered specifically because the complainant was not entitled to "opt out" entirely from the installation of a smart meter.[44]

The *Kreider* approach was adopted in other pending cases where violations of Section 1501's "safe and reasonable" standard were alleged. Accordingly, evidentiary hearings were convened in the Complainants' cases and extensive evidence was presented about reasonable accommodations for Complainants.

D. Summary Of The Relevant Evidence

In addition to their own testimony, Complainants relied upon the testimony of Andrew Marino, Ph.D.[45] and their respective physicians.[46] Complainants' testimony consisted of self-reporting symptoms they had experienced; offering a self-diagnosis that EMF/RF transmissions cause, contribute to, or exacerbate those symptoms; and expressing their belief that the installation of a smart meter would increase the severity of their existing health conditions.[47] Complainants' physicians testified that

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[43] *Id.*, p. 23.a

[44] *Id.,* n.12.

[45] Dr. Marino is currently retired. He had been a professor at the Louisiana State University Medical School. *See Murphy Order*, p. 36. R.165a.

[46] Appellees Povacz and Murphy also presented the testimony of Martin Pall, Ph.D. However, Appellees abandoned their reliance on his testimony, which they did not discuss in their respective briefs to the Administrative Law Judge and their Exceptions to the Judge's Initial Decision. *See Povacz Order*, p. 32, n.15. R.57a.; *Murphy Order*, p. 36, n.17. R.165a.

[47] *See, e.g., Murphy Order*, p. 37. R. 166a. Because of the similarity of the *Povacz, Murphy* and *Randall/Albrecht* orders, and to avoid repetition, the *Murphy Order* will generally be cited for matters common to the Appellees.

Complainants sought treatment for their self-reported symptoms and the physicians recommended that Complainants reduce their exposure to EMF and RF emissions.[48]

Dr. Marino testified that, in his opinion, there is a basis in established science to conclude that Complainants could be exposed to "danger" from RF fields emitted by PECO's legacy AMR or new AMI (smart) meters.[49] Dr. Marino also expressed his view that it would be "unreasonable" to expose the Complainants to smart meter RF transmissions at their residences.[50]

Dr. Marino reviewed reports of animal studies and epidemiological studies but relied principally upon a study he performed to assess a single subject who self-diagnosed as suffering from electromagnetic hypersensitivity syndrome ("EHS")[51] and a May 2016 draft report by the National Toxicology Program ("NTP") of a study of laboratory rats exposed to RF fields substantially higher than those emitted by smart meters ("Draft NTP Report").[52] Dr. Marino testified that, in his opinion, his EHS study demonstrated that the subject was able to determine when they were

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[48] *Id.*

[49] Tr. 578, R.1707a. *Murphy Order*, p. 41, R.170a.

[50] Tr. 579, R. 1708a. *Murphy Order,* p. 46. R. 175a.

[51] EHS is the term used by Dr. Marino. The World Health Organization's working group on EMF/RF recognizes the prevalence of that term among lay persons but recommends substituting "Idiopathic Environmental Intolerance" as a "neutral" term reflecting the medical mainstream's consensus that a causal connection has not been established between EMF/RF field exposure and the symptoms reported by individuals alleging EHS. PECO Statement No. 4 at Docket No. C-2015-2475726, p. 11. R.1661a.

[52] *Murphy Order*, pp. 39-40, 65-70. R.168a-69a, 194a-99a.

exposed to RF fields.[53] Dr. Marino also opined that the results summarized in the Draft NTP Report showed a statistically significant correlation between exposure to high-frequency RF fields and cancer in the rats studied.[54]

Dr. Marino testified that he gave "no probative value" to the large number of "negative" studies (i.e., studies showing no physical effects from RF exposure) and that only "positive" studies had merit.[55] Dr. Marino testified that RF fields below the FCC's limit are not safe because the FCC is not "protective of health," does not keep current with relevant research in the field, and has conflicts of interest.[56] Dr. Marino did not offer an opinion on whether smart meter RF fields would or did cause the symptoms reported by Complainants and admitted he had "no basis" to testify whether such fields would "cause harm" to Complainants' health.[57] Dr. Marino testified that he did not have "direct evidence" that RF transmissions "trigger EHS" and stated his position as "I believe my speculation is that's the case."[58]

Dr. Marino testified that PECO's smart meters could pose a risk to Complainants only if the meters produced RF exposure that exceeded the

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[53] Sept. 15, 2016 Tr. 612. R.1741a.

[54] *See Murphy Order*, p. 40. R.169a.

[55] *Id.*, pp. 39, 43-44. R.168a, 172a-73a.

[56] *Id.*, pp. 40 and 50, R.169a and R.179a; Sept. 15, 2016 Tr. 654-657. R.1783a-86a.

[57] *See Murphy Order*, pp. 41-42 (quoting Dr. Marino's colloquy with counsel declining to opine on the ultimate issue). R.170a-71a.

[58] *Id*., p. 79

"background" or "ambient" field levels Complainants already experience, because EMF are "virtually everywhere."[59] To formulate his opinion, Dr. Marino assumed that PECO's smart meters would increase Complainants' EMF and RF exposure and further assumed that Complainants residences are "electromagnetically quiet" (i.e., have low background RF levels) but conceded he had not measured or tried to calculate background EMF/RF fields at Complainants' locations.[60] Dr. Marino also opined that RF emissions from smart meters are more likely to cause physical reactions because they are "pulsed."[61]

In response, PECO presented the testimony of three expert witnesses, Glenn Pritchard, P.E., Christopher Davis, Ph.D., and Mark A. Israel, M.D.

Mr. Pritchard, PECO's Manager of Advanced Grid Operations and Technology Group,[62] described PECO's legacy AMR meter system and its new AMI meter system; described the RF transmissions from smart meters; explained why fiber optic or "wired" communication rather than wireless RF transmission is not

[59] *Murphy Order*, p. 45, R.174a; *Povacz Order*, p. 41-42, R.66a-67a; *Randall/Albrecht Order*, p. 41, R.273a.

[60] *Id*.

[61] *See Murphy Order*, pp. 45-46.

[62] Mr. Pritchard has a degree in electric engineering and is a licensed Professional Engineer. The focus of Mr. Pritchard's work is AMI technology. He was a principal in analyzing and selecting the AMI technology adopted by PECO to comply with the requirements of Sections 2897(f) and (g). *See* PECO Statement No. 2 at Docket No. C-2015-2475726. R.1584a.

feasible; and explained the accommodations available to customers for relocating a smart meter at their premises.[63]

Mr. Pritchard explained that the AMI system uses RF transmissions to communicate meter information from a customer location to the PECO network via Tower Gateway Basestations ("TGBs") through a FlexNet radio system, as depicted on PECO Exhibit GP-2. AMI meters include a second radio that uses wireless technology based on a global standard called Zigbee (comparable to Bluetooth for consumer products) designed for low-power networks that operate the "internet of things." The Zigbee radio allows a smart meter to communicate meter data to devices within a home so that those devices can be regulated to conserve energy by, for example, reducing load during peak periods, which is part of the functional requirements specified in Section 2807(g).

Mr. Pritchard explained that the FlexNet AMI technology PECO selected transmits information from smart meters to TGBs over radio frequencies reserved for PECO's use, which avoids interference from other sources and reduces the number of RF data transmissions. The FlexNet radio will transmit no more frequently than 10 times per day for 70 milliseconds at a maximum of two watts of power. This amounts to a total transmission time of 0.7 seconds every 24 hours. The Zigbee radio will transmit at approximately 1/10th of a watt for less than one

[63] PECO Statement No. 2 at Docket No C-2015-2475726. R.1584a.

microsecond per transmission, or about 0.2 seconds every 24 hours. The combined FlexNet and Zigbee transmissions will be less than one second every 24 hours. Mr. Pritchard provided this information to Dr. Davis to calculate AMI RF exposures.

Dr. Davis is the Minta Martin Endowed Professor of Engineering and Professor of Electrical and Computer Engineering at the University of Maryland.[64] Dr. Davis described EMF and the electromagnetic spectrum; explained the scientifically reliable basis for assessing the safety of RF fields; rebutted Dr. Marino's attempt to discredit the FCC's RF safety standards; calculated RF exposure from PECO's smart meters; compared smart meter RF fields to site-specific background EMF/RF calculations for Complainants' locations; and established that smart meter RF transmissions do not exceed Complainants' background EMF/RF.[65] The principal elements of Dr. Davis' testimony are as follows:[66]

- Sources of electromagnetic energy are arrayed on the electromagnetic spectrum from longest wavelength (least energy) to shortest wavelength (most energy).

[64] For a complete statement of Dr. Davis' qualifications, work experience, research and publications see PECO Statement No. 3 at Docket No C-2015-2475726, R.1607a and *Murphy Order*, p. 67, n.24, R.196a.

[65] Dr. Davis calculated smart meter RF exposure at a distance of one meter. PECO Exhibits CD-2 through CD-8. RF exposure would be exponentially less at distances greater than one meter (100 times less at 30 feet). PECO Statement No. 2 at PUC Docket No. C-2015-2475726, p. 11. R.1594a.

[66] *See generally* PECO Statement No. 3 at Docket No. 2015-2475726. R.1607a.

- The electromagnetic spectrum is divided into two fundamental categories. Ionizing waves have enough energy to break the chemical bonds of DNA.[67] Non-ionizing waves do not have enough energy to break chemical bonds, including chemical bonds in DNA.[68] RF transmissions are within the non-ionizing portion of the electromagnetic spectrum.
- The scientifically reliable basis for assessing whether smart meter RF signals are safe is whether they exceed the FCC's Maximum Permissible Exposure Limits ("MPEL") for non-portable devices (which include smart meters).
- The FCC's MPELs are based on exposure guidelines issued by the U.S. National Council on Radiation Protection and Measurements and the American National Standards Institute. Both organizations determined that the threshold (lowest level) of RF exposure at which adverse biologic effects could potentially occur is the point of tissue heating (thermal effect). Applying a margin of safety, those organizations set maximum exposure limits well below the point of tissue heating.[69]

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[67] Ionizing waves include medical x-rays, radioactive sources (e.g., uranium) and ultraviolet light from the sun (which can severely damage skin cells).

[68] Non-ionizing waves include, from lowest to highest frequency, EMF produced by electric current flowing through a conductor, RF transmissions and infrared energy (used in television remote controls).

[69] The FCC consulted with the U.S. Food and Drug Administration, the Environmental Protection Agency, the Occupational Safety and Health Administration and the National Institute of Occupational Safety and Health, which all supported the FCC's adoption of MPELs. *See* PECO Statement No. 3 at Docket No. 2015-2475726, p. 14. R.1620a.

- The FCC considered non-thermal effects and concluded that "there has been no determination that such effects constitute a human health hazard."[70] The FCC's assessment is supported by many reports of expert panels advising government and public health authorities and by the consensus of scientific research.[71]
- For RF transmissions like those from PECO's smart meters, the FCC's MPEL is based on a 30-minute average exposure.[72] The combined FlexNet and Zigbee RF transmissions measured one meter away from PECO's smart meters are below the FCC MPEL: FlexNet transmissions are 7.8 million times lower and Zigbee transmissions are 164 million times lower than the MPEL.[73]
- Even if "peak" (instantaneous) exposure during the fraction of a second when a PECO smart meter is transmitting[74] were compared to the 30-minute average exposure the FCC uses for its MPEL, FlexNet transmissions are 37.5

[70] *Id*. pp. 14-15. R.1620a-21a

[71] *Id.*, p. 23 (discussing findings of major government reports) R.1629a. *See Murphy Order*, p. 78. R.207a.

[72] *Id.*

[73] PECO Statement No. 3 at Docket No. 2015-2475726, p. 16. R.1622a and PECO Exhibit CD-2, R.16.

[74] As Mr. Pritchard explained, aggregated FlexNet and Zigbee transmissions will be less than one second every 24 hours.

times lower and Zigbee transmissions are 3,800 times lower than the MPEL.[75]

- Everyday life exposes humans to RF transmissions from many sources. Compared to RF exposure from PECO's smart meters:
  - Exposure from cell phone towers is 14.7 times greater;
  - Exposure ten miles away from typical radio and television transmitters is 18.4 times greater;
  - Exposure standing 30 feet away from a cell phone is 5,700 times greater;
  - Exposure from using a cell phone can be up to 1.9 million times greater;
  - Exposure from microwave ovens can be up to 6 million times greater.[76]
- Dr. Davis' calculations show that RF transmissions from PECO smart meters are less than background RF levels at Complainants' locations.[77] For example, Appellee Murphy's residence in West Chester, Pennsylvania, is within the broadcasting range of 19 separate UHF television transmitters. RF fields from a PECO smart meter (at a distance of one meter) are 282 times smaller than background RF exposure from those transmitters.[78]

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[75] PECO Statement No. 3 at Docket No. 2015-2475726, p. 16, R.1622a, and PECO Exhibit CD-3, R.1636a. Dr. Davis explained that a "peak" to average comparison is not proper; a valid comparison can only be made using the same average exposure on which the FCC based its MPELs. The peak-to-average comparison was provided solely to demonstrate the error in Dr. Marino's assertion that smart meters' peak transmissions exceeded the FCC's MPELs. *Id*. *See also Murphy Order*, p. 85, R.214a.

[76] *Id.*, p. 17; R.1623a, *see also* PECO Exhibit CD-5, R.1640a.

[77] *Id.*, pp. 17-25; Dec. 8, 2016 Tr. 1425-1427. *See Murphy Order*, p, 52, R.181a.

[78] *Id*. Similarly, the residence of Appellees Randall and Albrecht is located near a large "antennae farm" (a cluster of radio and televisions transmitters) in Philadelphia. *See* Dec. 8, 2016 Tr. 1425-1427.

- Seven minutes of cell phone use (shown on one of Appellee Murphy's monthly bills) produce RF exposure 1,200 times greater than that from PECO's smart meter, with those seven minutes equivalent to 107 years of RF exposure from the meter. [79]
- Dr. Davis testified to a reasonable degree of scientific certainty that there is no reliable basis to conclude that exposure to RF fields from PECO's AMI meters is capable of causing adverse biological effects in humans.[80]

Dr. Israel, at the time he testified, was a professor and medical researcher at Dartmouth Medical School.[81] Dr. Israel evaluated whether exposure to smart meter RF fields can cause, contribute to, or exacerbate the medical conditions reported by Complainants. He used the same methodology employed in the course of his medical work: searching medical and scientific databases; analyzing studies identified by that research; evaluating in their entirety the studies relevant to the Complainants' reported symptoms (including studies showing some effect and those showing no effect); and reviewing findings of public health agencies and similar

[79] PECO Statement No. 3 at Docket No. 2015-2475726, p. 18, R.1624a; PECO Exhibits CD-7 and CD-8, R1645a-50a.

[80] *See Murphy Order*, pp. 53 and 60, 182a and 189a.

[81] Dr. Israel is a physician licensed in California. Dr. Israel had been the Director and Chief Administrator of the Dartmouth Cancer Center and worked at the National Institutes of Health, where he began his research on EMF and health effects. For a complete statement of Dr. Israel's qualifications, work experience, research and publications see PECO Statement No. 4 at Docket No C-2015-2475726, R.1651a; Dec. 8, 2016 Tr. 1472 and *Murphy Order*, pp. 54 and 69, R.183a and 198a.

organizations for additional insights and to determine if their conclusions were consistent with his conclusions. He made his final medical evaluation based on the results of that process.[82]

Dr. Israel conducted his evaluation for each of the symptoms or conditions reported by Complainants and determined that there is no reliable medical basis to conclude that RF fields from PECO smart meters would cause, contribute to, or exacerbate any of those symptoms.[83] Dr. Israel furnished an overall medical opinion that exposure to RF fields from PECO smart meters will not be harmful to the Complainants' health, and he testified that he held both his symptom-specific and overall medical opinions to a reasonable degree of medical certainty.[84]

PECO's expert witnesses explained that Dr. Marino's EHS study was a single study of a single person; its results have never been replicated; and, as Dr. Marino conceded, other than his study, there are no published studies that any person is able to detect the presence or absence of electromagnetic energy.[85] Dr. Davis explained that the RF fields used in Dr. Marino's EHS study were more intense than smart meter RF transmissions, with an entirely different signal pattern.[86]

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[82] *Murphy Order*, p. 61, R.190a.

[83] PECO Statement No. 4 at Docket No C-2015-2475726, R.1651a. *See Murphy Order*, pp. 60-61, R.189a-90a.

[84] *Id*.

[85] *See Murphy Order*, pp. 43 and 74, R.172a and 203a.

[86] *Id*., p. 79, R.203a.

Dr. Davis explained that the Draft NTP Report is not relevant to smart meters because RF exposure from a PECO AMI meter at a distance of one meter is approximately 300 million times smaller than the RF fields used in the NTP study and the study was conducted on a species of rat bred (for research purposes) to be genetically disposed to get cancer.[87] Additionally, rats exposed to the ultra-high level RF fields used in the NTP study actually lived longer than those in the "control" group.[88] Dr. Israel also considered the Draft NTP Report, noting that, as a draft, it had not been peer-reviewed.[89] Dr. Israel further testified that, even if he deemed the Draft NTP Report a final peer-reviewed document, it did not "show causation" of adverse health effects and did not alter his opinion.[90]

PECO's witnesses rebutted Dr. Marino's claims that the FCC's MPELs are "outdated" and "not protective of human health";[91] explained that there is no valid basis to ignore "negative" studies; testified that they considered both "positive" and "negative" studies in reaching their opinions;[92] and demonstrated that smart meter RF transmissions are not "pulsed" as that term is understood in physics and

[87] *Id*., p. 80, R.209a.

[88] *Id*.

[89] *Id*., pp. 81-83, R.210a-12a.

[90] *Id*.

[91] *Id.*, pp. 84-85, R.213a-14a.

[92] *Id.*, pp. 55-56, R.184a-85a.

engineering[93] Additionally, Mr. Pritchard described PECO's tariff rules permitting relocation of a customer's meter and explained that other Appellee-proposed alternatives to installing an AMI meter were not feasible and would not provide the functionality required by Section 2807(g).[94]

E. The PUC's Orders

In the *Povacz, Murphy* and *Randall/Albrecht* orders, the Commission made the following findings and determinations relevant to the consolidated appeals:

Section 2807(f) does not grant a blanket "opt-out" exemption based on customer preference.[95] Pursuant to *Kreider*, *supra*, customers may adjudicate individual complaints raising "health safety" issues, and the PUC will consider those claims in conjunction with Section 1501.[96] However, if a claim of adverse health effects is not proved, the complaint is "the same as any other opt-out request based on customer preference," which Section 2807(f) does not allow.[97] Nonetheless, the Commission held that it has authority to consider reasonable accommodations for customers that express health-related concerns with smart meters.[98]

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[93] *Id.*, p. 46, R.175a.

[94] PECO Statement No 2 at Docket No. C-2015-2475726, pp. 8-11, R.1591a-94a; Dec. 12, 2016 Tr. 966-976, 1015, 1033-40, 1044-45, 1056-57, 1063-67.

[95] *See Murphy Order*, pp. 93-94, R.222a-23a.

[96] *Id*., p. 93, R.222a.

[97] *Id.*, p. 94 (explaining that if the General Assembly intended EDCs to build and maintain two separate metering systems it would have "plainly stated as much in Act 129, but it did not") R.223a.

[98] *See Povacz Order*, p. 95, R.120a.

Complainants alleging that smart meters have an adverse effect on human health, including claims of "unique" sensitivity or susceptibility to EMF, must prove the "causal connection" between EMF/RF fields and their health claims by a preponderance of evidence.[99] The PUC applied the standard of proof it employed for the last 25 years to assess claims of adverse health effects attributed to power lines. It rejected the different standard Complainants proposed ("potential for harm," "could" cause harm or "capable of causing harm") because that standard would allow Complainants to succeed based on "inconclusive scientific research."[100] The PUC explained that Complainants' proposal rests upon a "logical fallacy" and "overreach" that would require utility operations to achieve a "hazard free" standard that is not attainable in "the daily functioning and operation of public utilities."[101]

Complainants did not support the existence of a causal connection between exposure to smart meter RF fields and their claims of adverse health effects by a preponderance of evidence[102] – in fact, they failed to establish a prima facie case.[103] Dr. Marino testified that the Complainants' self-reported sensitivity is not sufficient to establish that they had EHS because confirming an

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[99] *See Murphy Order*, pp. 28-34. R.157a-62a.

[100] *Id*., pp. 30-31, R.159a-60a.

[101] *Id*., p. 33, R.162a.

[102] *Id*., pp. 63-83, R.192-212a.

[103] *Id.*, p. 66, R.195a.

EHS diagnosis would require individualized studies at a cost of $500,000 per subject. Without such studies, he could not opine whether Complainants have EHS. Based on the testimony of Complainants' own witness, the Commission concluded that Complainants had not proved they had EHS. The PUC placed no weight on the testimony of Complainants' physicians because they based their recommendations on Complainants' self-reported symptoms and diagnoses.[104]

The Commission found that neither Dr. Marino's EHS study nor the Draft NTP Report would support a finding of a causal connection between smart meter RF fields and adverse health effects in light of testimony from PECO's witnesses distinguishing those studies and placing them in the context of the extensive research finding no physical effects from EMF/RF.[105] Additionally, Dr. Marino could not give "an unequivocal opinion to a reasonable degree of certainty that the low-level RF fields from a PECO smart meter will adversely affect [Complainants'] health."[106] In contrast, Dr. Israel "stated unequivocally that exposure to the low-level RF fields from a PECO smart meters will not be harmful to the [Appellee's] health."[107]

The Commission accepted the FCC's MPEL as "relevant and persuasive to our review of the issue of whether low-level RF exposure is harmful to human health

[104] *Murphy Order*, p. 64, R.193a.

[105] *Id.*, pp. 79-83, R.208a-12a.

[106] *Id.*, p. 66, R.195a. *See also id.*, pp. 41-42 and 77, R.170a-71a and 206a.

[107] *Id.*, p. 66, R.195a.

and therefore unsafe."[108] The Commission accepted Dr. Davis' calculations, which "sufficiently demonstrated that the RF field exposure from a PECO smart meter, whether considered at an average or peak level, is significantly lower than the FCC limit."[109] The PUC concluded that Complainants had not met their burden of proof.[110]

The Commission considered and rejected Complainants' claim that installation of smart meters at their residences would constitute "unreasonable" service under Section 1501.[111] The Commission concluded that Complainants' claims of "unreasonable" service restated their claim that Complainants have a unique sensitivity or susceptibility to EMF/RF. Because Complainants' failed to carry the burden of proof to establish their claims, their argument fails for lack of proof and constitutes nothing more than the assertion of an unqualified, blanket opt-out exemption from Section 2807(f), which does not exist. To the extent that Complainants contended PECO violated the *Kreider* standard, their argument failed because the Commission found that PECO offered a reasonable accommodation by permitting relocation of their smart meters at a distance from their homes.[112]

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[108] *Id*., p. 68 and 84-85, R.197a and 213a-14a. The Commission also found that Dr. Marino's criticisms of the FCC's MPEL are factually incorrect and should be given no weight. *Id.*

[109] *Id.*, p. 69, R.198a. *See also id*., pp. 83-85 (accepting Dr. Davis' calculation of "background" EMF/RF levels), R.212a-14a.

[110] *See id*., p. 70, R.199a.

[111] *Id.*, pp. 90-94, R.219-23a.

[112] *Id*. pp. 91-92, R.220a-21a. *See also Povacz Order*, p. 91, R.116a.

F. The Opinion

The Opinion affirmed (1) the evidentiary standard the PUC employed to assess the safety of smart meters; (2) the PUC's conclusion that the evidence presented by Complainants would not support a finding that smart meters are unsafe; and (3) installation of smart meters does not violate customers' "substantive" due process rights.

The Opinion reversed the PUC's determination that Section 2807(f) does not authorize a blanket opt-out exemption based on customer preference and remanded for further consideration in light of that ruling. The court's Order states that this remand should consider "what, if any accommodations are appropriate for each individual Consumer." However, the Order also states that the range of permissible "accommodations" should include "deactivation of the RF emitting functions of smart meters" and substituting "wired" for "wireless" smart meters. Those "accommodations" are tantamount to an opt-out exemption from the installation of a smart meter given the functional requirements for "smart meter technology" in Section 2807(g) and the Implementation Order.

The Opinion also vacated and remanded for the Commission to consider whether Complainants satisfied their burden of proof to establish that installing smart meters may be "unreasonable" notwithstanding their failure to prove that smart meters are "unsafe" and, if so, what "accommodations" would satisfy the "reasonable" standard as defined by the court.

VII. SUMMARY OF ARGUMENT

Contrary to established principles of statutory construction, the Commonwealth Court disregarded the ordinary meaning of "shall furnish smart meter technology" in Section 2807(f)(2). Choosing one synonym from a dictionary definition, the court interpreted "furnish" to mean that EDCs may "offer" smart meter technology, but customers have an unqualified right to refuse it and demand a different kind of meter.

The ordinary meaning of "furnish" is discernible from how it is used throughout the Code. When "furnish" is used in reference to utility "facilities," "property and equipment" and, in particular, "meters" (Section 1507), it means the installation and physical presence of utility plant actually used to provide service. When the Legislature wanted to say "offer," it used the word "offer," as in Sections 1101 and 1102. Decisions of this Court recognize the distinction between "furnish" and "offer" as used in the Code.

The Commonwealth Court's error is also revealed by extrapolating its interpretation to other Code sections that use "furnish," which would grant customers the right to refuse "offered" services and facilities. Even the Commonwealth Court's understanding of "furnish" cannot be stretched to incorporate what Complainants want here – a right to refuse an "offer" and then

select technology more to their liking, despite the inability of that technology to meet statutory requirements and the requirements of the PUC.

The court also erred in ordering a remand with instructions that the PUC must consider "accommodations" that include "wired" rather than "wireless" smart meters and "turning off" the meter's wireless function. The court held that Complainants could be entitled to this relief because it hypothesized that the PUC had not considered "safe" and "reasonable" in the "disjunctive." Contrary to the court's misperception, the Commission adjudicated Complainants' claims of "unreasonable" service separately and found they had not been proven.

The Commonwealth Court erred by substituting its judgment for that of the PUC on the issue of what constitutes "reasonable" service. The court concluded that Complainants could meet their burden of proof to establish a violation of Section 1501 and preclude the installation of wireless AMI technology based on subjective "concerns" about possible health effects from RF emissions that are "demonstrably sincere" but unproven (i.e., "*without* proof of harm"). Until now, no appellate court has validated such a standard for assessing "reasonable" service. In fact, in 2019, the Commonwealth Court itself rejected it. If allowed to stand, the standard adopted by the Opinion creates the same opt-out exemption based on customer preference

that the court erroneously inserted in Section 2807(f)(2) by misinterpreting "furnish" as "offer."

VIII. ARGUMENT

A. The Commonwealth Court Erred By Construing "Furnish" In Section 2807(f) To Mean EDCs May "Offer" Smart Meters Subject To A Customer's Absolute Right Of Refusal

The Commission concluded that Act 129 requires system-wide deployment of smart meters and that customers do not have the right to "opt out" of the installation of smart meter technology. The Commonwealth Court reversed this finding on the grounds that Act 129 requires utilities to "furnish" smart meter technology, and that the term "furnish" means to "offer" and thus inherently includes the right of the recipient of such technology to refuse that "offer."

The court further directed that "[c]onsumers' requests for accommodations" should be considered on remand.[113] The remand to consider "accommodations" does not, however, constrain or qualify the court's categorical and unconditional holding that the use of "furnish" in Section 2807(f)(2) only requires EDCs to make an "offer" to install smart meters that customers have an absolute right to refuse.[114]

[113] Opinion, p. 490.

[114] *Id.*, p. 488.

Notably, that strained interpretation of what Section 2807(f) requires had not been argued by any party.[115]

As the Concurring and Dissenting Opinion accurately discerns, the majority's interpretation of "furnish" disregards the ordinary meaning of the plain language of Section 2807(f) and inserts a blanket opt-out exemption based on customer preference that the Legislature did not put there. In so doing, the Commonwealth Court ignored important and directly applicable guidance from this Court:

> [I]t is not for the courts to add, by interpretation, a requirement which the legislature did not see fit to include. Consequently, although one is admonished to listen attentively to what a statute says[;][o]ne must also listen attentively to what it does not say.[116]

1. The Words Of A Statute Should Be Construed In Accordance With Their Ordinary Meaning

This Court has explained that reviewing courts "must read a section of a statute in conjunction with other sections,"[117] employ a "contextual approach"[118] and adhere to the "principle of statutory construction . . . that legislative words are to be

[115] No party in proceedings before the PUC or the appeal to Commonwealth Court argued that "shall furnish" could be interpreted to mean "shall offer." The Commonwealth Court formulated its interpretation of "furnish" without providing any party the opportunity to brief that issue.

[116] *Commonwealth v. Fant*, 146 A.3d 1254, 1260 (Pa. 2016) quoting *Commonwealth v. Wright*, 14 A.3d 798, 814 (Pa. 2011).

[117] *Commonwealth v. Fant*, 146 A.3d at 1260.

[118] *See MERSCORP, Inc. v. Del. Cnty.*, 207 A.3d 855, 865 (Pa. 2019).

read in their context and not in isolation."[119] Notwithstanding that instruction, the Commonwealth Court focused on the word "furnish" alone, declined to consider how the word in its conjugated forms is used throughout the Code, and, instead, consulted a dictionary.[120] From the dictionary definition (presumably the part noting "give" as a synonym), the court hypothesized that, when the Legislature used the word "furnish" in Section 2807(f)(2), it really meant "offer," and the "recipient" need not "accept that which is offered."[121]

Unless a word is defined by statute, a court must give the term its "ordinary meaning"[122] This Court has repeatedly cautioned that dictionary definitions may not reflect "ordinary meaning" and, on a number of occasions, has rejected a lower court's resort to dictionary definitions.[123] For that reason:

> [A] statute cannot be dissected into individual words, each one being thrown onto the anvil of dialectics to be

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[119] *In re Estate of Wilmer,* 142 A.3d 796, 804-05 (Pa. 2016). *See also JP Morgan Chase Bank N.A. v. Taggart*, 203 A.3d 187, 198 (2019), Mundy, J. concurring (words do not "stand alone" and "are to be read in their context").

[120] Opinion, p. 488 ("To 'furnish' means 'to provide with what is needed; . . . supply, give.' Webster's Ninth New Collegiate Dictionary 499 (1985).")

[121] *Id*.

[122] *Commonwealth v. Fant*, *supra*. *See* W. Eskridge, Interpreting the Law 33, 34-35 (2016) ("[The] prime directive in statutory interpretation is to apply the meaning that a reasonable reader would derive from the text of the law" so that "the ordinary meaning (or the 'everyday meaning' or the 'commonsense' reading) of the relevant statutory text is the anchor for statutory interpretation.") *See also* Manning, The Absurdity Doctrine, 116 Harv. L. Rev. 2387, 2393 (2003) ("[T]he literal or dictionary definitions of words will often fail to account for settled nuances or background conventions that qualify the literal meaning of language and, in particular, of legal language.")

[123] *Commonwealth v. Fant*, 146 A.3d at 1261, n. 6 ("Dictionaries do not necessarily provide the 'ordinary meaning' of a word under a statute. . .")

> hammered into a meaning which has no association with the words from which it has violently been separated.[124]

2. The Ordinary Meaning Of "Furnish" Is Discernable From Its Use Elsewhere In The Code

The Opinion ignores fundamental principles established by this Court and fails to give the words of Section 2807(f) their ordinary meaning. The ordinary meaning of "furnish" is evinced by the way that word is used in the Code.

"Furnish" and "furnished" are used repeatedly in the Code, not just in Section 2807(f). They appear first in Section 102's definitions of "facilities,"[125] "rate"[126] and "service."[127] Section 102's definition of "public utility" is instructive because it excludes "[a]ny person or corporation . . . who or which furnishes service only to himself or itself." If "furnishes" means "offers," that sentence is drained of logic and common sense; a person or corporation would not engage in an internal dialogue of "offer" and "acceptance" with itself.

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[124] *Id.* quoting *Bertera's Hopewell Foodland, Inc. v. Masters*, 236 A.2d 197, 204 (Pa. 1967) overruled on other grounds by *Goodman v. Kennedy*, 329 A.2d 224 (Pa. 1974).

[125] "All the plant and equipment of a public utility, including all tangible and intangible real and personal property without limitation, and any and all means and instrumentalities in any manner owned, operated, leased, licensed, used, controlled, *furnished*, or supplied for, by, or in connection with, the business of any public utility." (Emphasis added.)

[126] "Every individual, or joint fare, toll, charge, rental, or other compensation whatsoever of any public utility . . . made, demanded, or received for any service within this part, offered, rendered, or *furnished* by such public utility . . ." (Emphasis added.)

[127] "All the plant and equipment of a public utility . . . and any and all means and instrumentalities in any manner owned, operated, leased, licensed, used, controlled, *furnished*, or supplied for, by, or in connection with, the business of any public utility." (Emphasis added.)

Sections 1101[128] and 1102,[129] which describe conduct requiring a certificate of public convenience, also use "furnish." Those sections draw a clear distinction between "furnish" and "offer" as two different and non-synonymous terms.

Significantly, Section 1501's delineation of the "safe and reasonable" standard employs "furnish" to describe a public utility's "facilities" that are used to serve customers and are subject to "repairs, changes, alterations, substitutions, extensions, and improvements."

> **§ 1501. Character of service and facilities**.
>
> Every public utility shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. [130]

Of particular relevance here, Section 1507 specifically targets utility "meters" and leaves no doubt that when the Legislature used the word "furnished" it was referring to meters physically installed at customers' premises:

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[128] "Upon the application of any proposed public utility and the approval of such application . . . evidenced by [a] certificate of public convenience . . . it shall be lawful for any such proposed public utility to begin to offer, render, *furnish*, or supply service within this Commonwealth." (Emphasis added.)

[129] "For any public utility to begin to offer, render, *furnish* or supply within this Commonwealth service of a different nature or to a different territory than that authorized by: (i) A certificate of public convenience granted under this part . . ." (Emphasis added.)

[130] "Furnished" also appears in Section 1505 (a companion to Section 1501), which describes remedies the PUC may impose for deficiencies in service or facilities: "Whenever the commission . . . finds that the service or facilities of any public utility are unreasonable, unsafe, inadequate, insufficient, or unreasonably discriminatory, or otherwise in violation of this part, the commission

> **§ 1507. Testing of appliances for measurement of service**.
>
> Every public utility, furnishing service upon meter or other similar measurement, shall provide, and keep in and upon the premises of such public utility, suitable and proper apparatus, to be approved from time to time and stamped or marked by the commission, for testing and proving the accuracy of *meters furnished by such public utility for use*; and by which apparatus every meter may be tested, upon the written request of the consumer *to whom the same shall be furnished*, and in the presence of the consumer, if he shall so desire. If the meter so tested shall be found to be accurate, within such commercially reasonable limits as the commission may fix for such meters, a reasonable fee, to be fixed by the commission, sufficient to cover the cost of such test, shall be paid by the consumer requiring such test; but, if not so found, *then the cost thereof shall be borne by the public utility furnishing the meter*. (Emphasis added.)

In all the Code sections discussed above, when "furnish" is used in reference to utility "facilities," "property and equipment" and, in particular, "meters" (in Section 1507), its "ordinary meaning" connotes the installation and physical presence of utility plant used to provide service. In contrast, when the Legislature wanted to say "offer," it actually used the word "offer," as in Sections 1101 and 1102 (requiring approval for "a public utility to begin to *offer*, render, furnish, or

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shall determine and prescribe . . . the reasonable, safe, adequate, sufficient, service or *facilities* to be observed, *furnished*, enforced, or employed, including all such repairs, changes, alterations, extensions, substitutions, or improvements in facilities as shall be reasonably necessary . . ." (Emphasis added.)

supply service") and Section 102 (defining "rate" and distinguishing between "offered" and "furnished").

The distinction between "offer" and "furnish" was central to this Court's decision in *Bethlehem Steel Corp v. Pa. P.U.C.*[131] There, the Court concluded that a gas pipeline company's providing ("furnishing") service to one customer did not make it a public utility so long as it did not "offer" to furnish service to other customers.[132] The Court found that the pipeline was not "offering" service to the public. As the Concurring Opinion in that case noted, the difference between "offering" service to the public and actually providing ("furnishing") service was the deciding issue in other decisions by the Court determining public utility status.[133]

The Opinion's error is also revealed by extrapolating its interpretation to other sections of the Code. Doing so would mean utilities may "offer" a specific facility, process or methodology to provide utility service, but customers may refuse what is "offered" and insist on receiving service through a different technology or other modality. Granting customers that degree of optionality would make the provision of safe, reasonable, reliable and efficient utility service (which is reliant on utility technology and infrastructure designed to serve large numbers of customers, such as substations) either infeasible or unaffordable. It would "affect adversely the welfare

[131] 713 A.2d 1110 (Pa. 1998).

[132] *Id.*, p. 1114 and n.4.

[133] *Id.*, p. 1116.

of the entire state" to an even greater degree than municipalities' intrusions on PUC authority that this Court has prohibited.[134]

3. The Opinion's Reliance On Other Parts Of Act 129 is Misplaced

The Commonwealth Court tried to reinforce its dictionary-based interpretation of "shall furnish" by reference to:

- Section 2807(f)(3) (requiring customer "consent" before making a customer's usage profile accessible to third parties);[135]
- Section 2807(f)(5) (requiring "default service providers" to develop "time-of-use rates and real-time price plans" that, following PUC approval, they "shall offer" to all customers with smart meters and that "residential or commercial customers may elect");[136]
- Section 2807(g) (which the court characterized as employing "permissive terms" that would allow EDCs to install meters that cannot meet the functional requirements specified in that section);[137]
- The PUC's "internet consumer information page concerning Act 129," which the court asserted "speaks in permissive language."[138]

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[134] *See PPL Elec. Util. Corp. v. City of Lancaster*, 214 A.3d 639 (Pa. 2019).

[135] Opinion, pp. 488-489.

[136] *Id*.

[137] *Id*.

[138] *Id*.

None of the sources the court relied upon supports its interpretation. The language of Sections 2807(f)(3) and (5) contradicts the court's interpretation of "shall furnish" to mean "shall offer" because it demonstrates that, where the Legislature intended to give customers the opportunity to "consent" or "elect" to something "offered," it explicitly said so. Nothing similar appears in Section 2807(f)(2), which plainly says "shall furnish."[139] In fact, instead of providing customers with an opportunity to refuse a smart meter, the General Assembly provided an explicit right in Section 2807(f)(2)(i) for customers to obtain a smart meter *early* if the customer would pay for its installation.

The Opinion's reliance on Section 2807(g) is similarly unavailing. In construing that provision, the court, paradoxically reads "including," "capable of," and "support" to mean "not including," "not necessarily capable of," and "not necessarily support."[140] Additionally, the court's strained interpretation of Section 2807(g) is directly contradicted by substantial record evidence establishing that it is

[139] *Commonwealth v. Fant, supra,* illuminates the error in the Opinion's reasoning: "[A]lthough one is admonished to listen attentively to what a statute says[;][o]ne must also listen attentively to what it does not say."

[140] The plain language of Section 2807(g)(3) states that smart meter technology "shall also" "[e]ffectively support the automatic control of the customer's electric consumption" by one of three specified modes. While customers may "select" which control mode they wish to employ, Section 2807(g)(3) does *not* give customers the option to "select" a meter that lacks the capability to "support" the "automatic control of the customer's electricity consumption."

not feasible or practical to satisfy the functional requirements specified in that section without using wireless meters.[141]

The PUC's "internet consumer information page concerning Act 129" does not support the court's interpretation, either. First, the "page" the court cited is not part of the record. Second, the "page" cited by the court has nothing to do with smart meters.[142] Rather, it furnishes information about EDCs' energy efficiency and conservation ("EE&C") plans adopted to comply with an entirely different part of the Code (Section 2806.1). EE&C plans provide subsidies and grants to encourage customers to install energy-efficient appliances and equipment and to reduce the demand they impose during "peak" periods. That page "speaks in permissive language" because Section 2806.1 explicitly requires EDCs to adopt EE&C plans without requiring customers to participate in them.

4. The Commonwealth Court's Interpretation Of "Furnish" Would Have Significant Adverse Effects On All Forms Of Utility Service

The striking breadth of the Opinion is underscored by the "accommodations" it would require the Commission to consider, which include "deactivation of the RF emitting functions of smart meters at Consumers' homes" and substituting "wired"

[141] PECO Statement No. 2 at PUC Docket No. C-2015-2475726, pp. 8-10, R.1591a-93a; Dec. 12, 2016 Tr. 966-976, 1015, 1033-40, 1044-45, 1056-57, 1063-67.

[142] An entirely different part of the PUC's website is devoted to smart meters. *See* https://www.puc.pa.gov/General/consumer_ed/pdf/13_Smart%20Meters.pdf. There, the PUC does not speak in "permissive language."

for "wireless" smart meters. These are not "accommodations" but, instead, a validation of Complainants' extreme position that customers have the right to select the facilities that a utility must use to furnish their service and, therefore, can block the installation of any meter that uses wireless technology.

The court's holding will create formidable obstacles to furnishing safe and reliable service at reasonable costs for *all* utilities, not just EDCs.[143] PECO presented substantial evidence that enabling individual customers to obstruct the comprehensive, uniform deployment of smart meter technology would have a significant adverse effect on its operations and the implementation and objectives of Act 129.[144] Relying reasonably and in good faith upon the PUC's approval of its Smart Meter Plan, the Company invested $750 million to design, procure, install, operate and maintain technology to integrate wireless smart meters with AMI data collection and management infrastructure that furnishes the inputs needed to operate its customer information, billing and accounting functions and contributes real-time

[143] For example, the PUC previously addressed twenty-four complaints by customers alleging their water utility violated Section 1501 because they expressed concerns about the effects of the company's water purification process even though it was approved as safe by the U.S. EPA and Pa. DEP. *Pickford, et al v. Pennsylvania-American Water Co*., Docket Nos. C-20078029 et al, 2009 Pa. PUC LEXIS 1239 (May 14, 2009) at *35. *See also Rovin v. Pa. P.U.C*., 502 A.2d 785 (Pa. Cmwlth. 1986) (affirming dismissal of a complaint alleging a Section 1501 violation based on a water utility's fluoridation policy notwithstanding Pa. DEP's finding that the utility met federal and state drinking water standards).

[144] Dec. 12, 2016 Tr. 1056:16-1057:20.

information on total-system operating conditions to PECO's advanced Distribution Management System (DMS).[145]

The Opinion went off-track because the court fundamentally misunderstood what the PUC held in the Orders below. Specifically, the court "reversed that portion of the of the PUC's decisions finding [the PUC] lacked authority for accommodations" and remanded "to allow consideration of Consumers' requests for accommodations" that may be "appropriate" based on the court's holding "that Act 129 does not forbid such accommodations."

Contrary to the court's belief, the Commission did not hold that it "lacked authority" to grant "accommodations." It applied the standard adopted in *Kreider*,[146] where it held that Section 1501 provides authority to consider and impose reasonable "accommodations" consistent with Section 2807(f)'s universal deployment mandate.[147] Extensive evidence was submitted about "accommodations" that would be "reasonable," and the Commission expressly found that moving a smart meter away from a customer's residence is a "reasonable accommodation."[148] The Commission found that the "accommodations" proposed by Complainants, on the other hand, were not "reasonable" because they were not feasible, would not provide

[145] *Id*.

[146] *See Murphy Order*, p. 16, R.145a.

[147] *See* Section VI.C., *supra*.

[148] *See* Sections VI.D. and E., *supra*.

functionality required by express statutory provisions, or would be prohibitively expensive.

B. The Commonwealth Court Erred In Remanding Complainants' Cases For The PUC To Consider For A Second Time Whether The Installation Of Smart Meters Pursuant To Section 2807(f) May Be Unreasonable Notwithstanding The PUC's Finding That Smart Meters Are "Safe"

Before the PUC, Complainants alleged that installing smart meters at their premises would violate one or both of the "safe" and "reasonable" standards set forth in Section 1501. However, both prongs of the alleged violation were based on Complainants' claim that they would be harmed by exposure to smart meter RF fields because they have a unique – albeit self-diagnosed – "sensitivity" or "susceptibility" to EMF/RF fields.

Although Complainants tried to articulate separate violations of, respectively, the "safe" and "reasonable" elements of Section 1501, the alleged violations have a common origin. To be clear, the Complainants did *not* argue that PECO's smart meters are unsafe (because they allegedly could cause adverse health effects) and installing smart meters would constitute unreasonable service for reasons unrelated to the alleged health effects of RF transmissions. To the contrary, the Complainants' contention that installation of smart meters would be "unreasonable" service because of their alleged "sensitivity" or "susceptibility" to EMF/RF fields is simply a variation on their principal theme that PECO's smart meters are not "safe." Consequently, Complainants' averment of self-diagnosed "sensitivity" and

"susceptibility" to EMF/RF fields was the factual predicate for their claims that installing smart meters at their premises would violate, respectively, the "safe" and "reasonable" elements of Section 1501. Thus, when Complainants failed to prove their claim of unique "sensitivity" or "susceptibility" to EMF/RF fields, they failed to prove a violation of either the "safe" or the "reasonable" standards set forth in Section 1501.

There is no valid basis for the Commonwealth Court's conjecture that the PUC did not properly consider, in the disjunctive, the "safe" and "reasonable" criteria for a Section 1501 violation or that the Commission's analysis and application was "inconsistent."[149] Based on its thorough review of the record, the PUC found that Complainants had not proven that smart meters are "unsafe." It also found that Complainants had not proven that installing smart meters at their premises would be "unreasonable," because the record evidence does not support a finding that smart meter RF transmissions would cause, contribute to, or exacerbate any of Complainants' specific, individualized, self-reported symptoms.[150] The Commonwealth Court concluded that the Commission's findings of fact are supported by substantial evidence. Under these circumstances, no purpose would be served by a remand.

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[149] *See* Opinion, pp. 490-491.

[150] In fact, as Dr. Marino and Appellee Murphy's physician conceded, there is no "no consensus clinical diagnosis in the medical community for EHS." *Murphy Order*, pp. 64-65, R.193a-94a.

Contrary to the scope and standard of review that apply to appeals of agency decisions, the Commonwealth Court disregarded the Commission's findings of fact on the "safety" of smart meters and the "reasonableness" of installing them at Complainants' premises. And, with specific reference to "reasonableness," the court ignored the Commission's finding that moving Complainants' meters is a reasonable accommodation.[151] The Commonwealth Court's prescription of what the PUC should consider the second time around[152] reveals that, under the guise of a "remand," the court was substituting its judgment for that of the Commission on a matter that the Commission had already considered extensively and which lies at the heart of the PUC's authority, expertise and primary jurisdiction:

> [T]he PUC should consider whether accommodations are appropriate *without* proof of harm, so that Consumers may choose to avoid RF emissions from wireless smart meters . . .[153]

The terms of the court's remand would validate the Complainants' position that a "sincere" belief that RF transmissions have adverse health effects is sufficient to compel an "accommodation" even though substantial evidence does not exist to support Complainants' claim that any physical effects are caused by exposure to

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[151] *See* Section VI.D., *supra* (explaining the reduction in RF field strength from moving a meter thirty feet).

[152] *See* Opinion, pp. 491-492.

[153] *Id*., p. 492.

smart meter RF fields.[154] Additionally, disregarding the record evidence,[155] the court directed the PUC to "consider" as possible "accommodations" using "wired" meters and meters whose radio function has been "turned off."[156] In short, by imposing an unprecedented and wholly subjective standard (the sincerity of customers' "concerns") to assess "reasonableness," the court created another opt-out exemption that would be indistinguishable from the categorical and unconditional right of refusal it inserted in Section 2807(f)(2) by interpreting "furnish" to mean "offer."

The court tried to support a "sincere" concern test for judging "reasonableness" with the perplexing assertion that RF transmissions may pose "dangers" that are "known" even though "medical research" has not produced evidence to substantiate them.[157] In so doing, the court once again disregarded the record evidence, including the standards established by the FCC, and the Commission's findings of fact.

The Commonwealth Court's remand and associated directives usurp the Commission's authority and primary jurisdiction to determine what constitutes "reasonable" service under the Code. Reasonableness of utility service is within the

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[154] *Id*., p, 491.

[155] The record evidence refutes the court's assumption that PECO's AMI infrastructure and the associated customer information, billing and accounting functions that it supports can operate effectively when individual customer accounts are pulled out of the system. *See* Section VIII.D, *supra*.

[156] Opinion, p. 492. *See also id*., p. 490.

[157] *Id*., p, 492.

PUC's primary jurisdiction, is "a complex matter requiring special competence" and is "peculiarly within the agency's area of expertise."[158] Accordingly, it was for the Commission, not the Commonwealth Court, to assess and weigh the evidence and make findings of fact to determine what is "reasonable." The Commission did just that.

The Commonwealth Court's review is limited to determining whether the Commission's findings and conclusions are supported by substantial evidence, whether there was an error of law and whether there was a violation of constitutional rights. *See* Section IV, *supra*. The Commonwealth Court held that the Commission's findings are supported by substantial evidence and that Complainants' constitutionally protected rights are not implicated.

A standard that uses customers' "sincere" concerns to determine what is "reasonable" service cannot plausibly be advanced as the court's effort to correct an "error of law." A customer's "sincere" but unproven "concern" that a utility's service or facilities may have adverse health or safety effects – an inherently fact-based contention – has never, until now, been validated by a Pennsylvania appellate court as a reasonable interpretation of Section 1501. In fact, in *West Penn Power Co. v. Pa. P.U.C.*,[159] decided in 2019, the Commonwealth Court rejected such a

[158] *Elkin v. Bell Tel. Co.*, 420 A.2d 371, 377 (Pa. 1980).

[159] 1548 C.D. 2019, 2019 Pa. Commw. Unpub. LEXIS 532 (Pa. Cmwlth. 2019).

subjective test. Although unpublished, that decision has significant persuasive value[160] as evidence that the court has not previously considered a customer's "sincere" belief to be a legally valid basis for finding a violation of Section 1501.

In *West Penn Power*, the "Complainant offered nothing more than his personal opinion in seeking to establish his burden that West Penn's proposed herbicide use would harm his property and was, thus, unreasonable.[161] Here, the Complainants' failed to prove their claims of either general or customer-specific health effects from RF fields after extensive proceedings before the Commission but persist in seeking relief based solely on their personal beliefs – a case that is legally indistinguishable from *West Penn Power Co*.

The court tried to minimize the consequences of adopting its proposed test for "reasonableness" with contentions that are unsupported (or, in fact, contradicted) by record evidence and amount to nothing more than speculative predictions:

"[T]he burden to PECO of accommodating [Complainants'] desire to avoid RF emissions is minimal . . ."[162] This claim is not accompanied by a citation to the record because the evidence does not support it.[163]

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[160] *See* Pa.R.A.P 126(b).

[161] *Id*. at *24.

[162] Opinion, p. 492.

[163] *See* PECO Statement No 2 at Docket No. C-2015-2475726, pp. 8-11, R.1591a-94a; Dec. 12, 2016 Tr. 966-976, 1015, 1033-40, 1044-45, 1056-57, 1063-67. *See also* Section VIII.A., *supra*.

"The record does not contain evidence from PECO that it would incur any extreme costs by accommodating Consumers' desires to avoid RF emissions in three homes in PECO's service area."[164] This statement is correct only for the accommodation the PUC found "reasonable" – relocating customers' meters. It is not correct for other accommodations that the court directed the PUC to consider, which would eliminate the use of RF technology entirely. PECO presented substantial evidence on the effects that accommodations other than meter relocation would have on its operations and the attendant costs, as noted above,[165] and the Commission found that evidence to be substantial and persuasive.

"Even if Consumers obtain the relief they seek, it is difficult to imagine that large numbers of other PECO customers will then flood the utility with requests to avoid RF emissions at increased cost."[166] Imposing a sincere-concern test that would have far-reaching adverse effects on all EDCs' smart meter deployments should not turn on what the court can "imagine." As of October 19, 2020, the Commission's docket contained 74 formal complaints objecting to smart-meter deployment, 48 of which were in active litigation and 26 pending review of

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[164] Opinion, p. 492.

[165] *See Murphy Order*, p. 94 (a customer-preference opt-out would require EDCs to "invest in and maintain two separate sets of meter systems") R.223a . *See also Petition of PECO Energy Company for Approval of Its Smart Meter Universal Deployment Plan*, Docket No. M-2009-2123944 (Rec. Dec. issued Jul. 12, 2013), p. 11 (earlier termination of parallel operations of two metering systems estimated to produce savings of $58 million).

[166] Opinion, p. 492.

Initial Decisions.[167] As of the same date, nine appeals and one original jurisdiction action challenging smart meter deployment were pending before the Commonwealth Court.[168] Clearly, the facts differ markedly from what the court "imagines." No one can predict how customers would react if the court's sincere-concern test or "shall offer" interpretation are upheld and PECO, other EDCs and the PUC provide, as they must, educational materials explaining that customers have a preference-based exemption from the installation of RF-enabled smart meters.

"Here the PUC and PECO offer no such option [to turn off the wireless communication feature of smart meter]"[169] This assertion ignores the undisputed evidence that the "option" of "turning off" wireless communication has a cascading effect on the operation of PECO's AMI system and on the customer information, billing and accounting functions and DMS that it supports. There is not a practical way to achieve the functionality required of "smart meter technology" without using wireless technology. For that reason, the Commission did not find the options proffered by the court to be "reasonable."

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[167] *Petition for Allowance of Appeal of the Pennsylvania Public Utility Commission*, Docket Nos. 619-621 MAL (filed Nov. 9, 2020), p. 15.

[168] *Id*., p. 16.

[169] Opinion, p. 492.

IX. CONCLUSION

For the reasons set forth above, Paragraph Nos. 2, 3 and 4 of the Commonwealth Court's Order and accompanying portions of its Opinion should be reversed.

Respectfully submitted,

Kenneth M. Kulak
(Pa. No. 75509)
Anthony C. DeCusatis
(Pa. No. 25700)
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921
215.963.5384

Anthony E. Gay, General Counsel
(Pa. No. 74624)
Jack R. Garfinkle, Associate General Counsel
(Pa. No. 81892)
Ward L. Smith, Assistant General Counsel
(Pa. No. 47670)
PECO Energy Company
2301 Market Street, S23-1
Philadelphia, PA 19103
215.841.4635

Counsel for PECO Energy Company

Dated: July 28, 2021

IN THE SUPREME COURT OF PENNSYLVANIA

Docket Nos. 37-39 MAP 2021
Consolidated With
Docket Nos. 34-36 MAP 2021 and Docket Nos. 40-45 MAP 2021

MARIA POVACZ, LAURA SUNSTEIN MURPHY AND
CYNTHIA RANDAL AND PAUL ALBRECHT

v.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PRINCIPAL BRIEF FOR APPELLANT PECO ENERGY COMPANY

On Petition for Allowance of Appeal Granted May 12, 2021, at 622-624 MAL 2020 from Opinion and Order of the Commonwealth Court of Pennsylvania Entered October 8, 2020, at Nos. 492, 606 and 607 C.D. 2019 that, in Part, Affirmed, Vacated, Reversed and Remanded Orders of the Pennsylvania Public Utility Commission Entered March 28, 2019 at Docket No. C-2015-2574023 and May 9, 2019 at Docket Nos. C-2015-2475726 and C-2016-2537666

CERTIFICATE OF COMPLIANCE

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1. I certify that the foregoing Principal Brief of Appellant ("Brief") complies with the word-count limits of Pa.R.A.P. 2135(a)(1). Based on the word-count feature of the word processing system used to prepare it, the Brief excluding the cover page, Table of Contents, Table of Authorities, signature blocks and Appendices contains 13,894 words.

2. I certify that the Brief and accompanying Appendices comply with the provisions of the *Public Access Policy of the Unified Judicial System of Pennsylvania: Case Records of the Appellate and Trial Courts* that require filing confidential information and documents differently than non-confidential information and documents.

Respectfully submitted,

Kenneth M. Kulak (Pa. No. 75509)
Anthony C. DeCusatis (Pa. No. 25700)
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921
215.963.5384

Anthony E. Gay, General Counsel
(Pa. No. 74624)
Jack R. Garfinkle, Associate General Counsel
(Pa. No. 81892)
Ward L. Smith, Assistant General Counsel
(Pa. No. 47670)
PECO Energy Company
2301 Market Street, S23-1
Philadelphia, PA 19103
215.841.4635

Counsel for PECO Energy Company

Dated: July 28, 2021