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March 20, 2020

Via Federal Express

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

Re: Judith D. Hendin v. Metropolitan Edison Company
Docket No. C-2018-3003324

Dear Secretary Chiavetta:

Enclosed please find the Non Public and Public Version of the Brief of Complainant Judith Hendin for filing and the applicable Certificate of Service with regard to the above-captioned matter.

Please contact me if you have any questions regarding this matter.

Respectfully submitted,

Joanna A. Waldron, Esquire
CURTIN & HEEFNER LLP

cc: Per Certificate of Service

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PUBLIC VERSION- CONFIDENTIAL INFORMATION REDACTED

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Judith D. Hendin	:	
	:	
V.	:	C-2018-3003324
	:	
Metropolitan Edison Company	:	

BRIEF OF COMPLAINANT JUDITH HENDIN

Dated: March 20, 2020

s/Joanna A. Waldron
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STATEMENT OF THE CASE

Ms. Hendin demonstrated that Met-Ed's smart meter presents a risk of harm to her, and that it is not safe, nor reasonable, for Ms. Hendin to be forced to accept this unreasonable risk.

Ms. Hendin has been informed that electric service to her residence can only be provided with an installation of a smart meter facility that emits RF and that the facility can only be installed at a location within four feet of her main living space. [redacted] The utility unreasonably insists that she cannot have electricity unless she accepts the RF-emitting smart meter facility, and must reduce her exposure to all electromagnetic frequencies ("EMFs"), a treatment prescribed by her doctor. *Met-Ed's position that there is no potential for harm from installation of the facility is not* credible. At the very least, the scientific disagreement between the parties suggests that Ms. Hendin is potentially harmed by RF exposure, and which constitutes unreasonable and unsafe service to Ms. Hendin in violation of the Code.

The Commission incorrectly concludes that Act 129 creates a state-wide mandate of smart meters for the covered EDCs by misinterpreting unambiguous legislative intent and misinterpreting plain, unambiguous legislative language.

PROCEDURAL BACKGROUND

Ms. Hendin filed her Complaint on June 29, 2018. On October 18, 2018, Met-Ed's preliminary objections were denied. A hearing notice was issued on September 5, 2019, establishing an initial in-person hearing for this matter for December 19, 2019 and December 20, 2019, reassigning the case to Administrative Law Judge Joel Cheskis. Further, a prehearing order dated September 13, 2019 was issued. On December 19, 2019, Judge Cheskis held an evidentiary

hearing. An additional partial day of evidentiary hearings was held on December 20, 2019. A second partial day of evidentiary hearings was held on January 24, 2020. Witnesses testifying at the hearing were Ms. Hendin, Dr. William Kracht for Ms. Hendin, and for Defendant Utility, First Energy employee John Ahr, Dr. Christopher Davis, and Dr. Mark Israel. At the conclusion of the hearings, a briefing schedule was issued on February 19, 2020, setting briefs due on March 16, 2020 and reply brief on April 6, 2020.

Ms. Hendin filed a request for surrebuttal testimony and a stay to permit the determination of several cases on appeal at the Commonwealth Court. Ms. Hendin filed a Motion for late filed exhibits on February 14, 2020.

PROPOSED FINDINGS OF FACT

1. Ms. Hendin is a somatic therapist, author and lecturer in the field of bodypsyche consciousness, who works out of her home. *Amended St. of Hendin* at 1:5-6, 11-12 (hereinafter "*St. of Hendin*").

2. Met-Ed proposes to install an Advanced Meter Infrastructure ("AMI") or "smart meter" 6 inches from the only door in and out of her home, which is also her workplace. The smart meter would be less than 4 feet from the kitchen, only 8 feet from the office and less than 20 feet from where Ms. Hendin sleeps. *Id.* at 2:24-28.

3. Met-Ed does not have an alternative placement for the smart meter at Ms. Hendin's home, and only permits Ms. Hendin to move the location of the meter at her own expense if she accepts the financial responsibility for the wires. *Cross Examination of Ahr, Dec. 19, 2019 Transcript,("Ahr Cross")* at 166:11-13.

4. Ms. Hendin has been diagnosed with [redacted] *St. of Hendin* at 2:30-1.

5. Ms. Hendin has lived at her residence for many years and does not want to move to comply with her doctor's advice to avoid RF exposure and therefore, needs an analog meter as an accommodation. *St. of Hendin* at 6:115-118.

6. Ms. Hendin has underlying conditions, [redacted] *St. of Hendin* at 3:33-34; 7:182-184.

7. Dr. William Kracht is a practicing physician with a Doctor of Osteopathy degree from Philadelphia College of Osteopathic Medicine. He has over 29 years of experience in family medicine with areas of special competence in integrative and environmental medicine. *St. of Kracht* at 2:, 8-13; WK-1.

8. Dr. Kracht has been an active member of the American Academy of Environmental Medicine since 1986, and is well acquainted with the diagnosis and management of these syndromes, having treated dozens of patients with electromagnetic hypersensitivity. *St. of Kracht* at 2:9-13; Ex. WK-1; *Direct Testimony of Kracht, Dec. 19, 2019 Transcript, ("Kracht Direct")* at 96:24-25; 97:1-5.

9. Dr. Kracht has treated Ms. Hendin for almost 18 consecutive years as her primary physician attending to both her health maintenance care and illness management. *St. of Kracht* at 3:33-34.

10. Ms. Hendin and Dr. Kracht confirm that Ms. Hendin's symptoms experienced when she had a digital smart meter for gas service prior to 2015, were similar to symptoms experienced by other people when exposed to smart meters.

11. Dr. Kracht has prescribed limiting EMF exposure. *St. of Kracht* at 5:82-91.

12. Dr. Kracht advised Ms. Hendin to avoid EMFs as much as possible, as well as volatile organic chemicals and to take other chemical avoidance measures. *Id.*

13. Ms. Hendin has taken steps to eliminate almost all exposure to sources of EMF at her residence, for example she has no television, microwave, wireless devices or wifi. *St. of Hendin* at 3:49-90. She has created many protections:

- The house does not have wifi or any wireless devices.
- The computer is hard-wired (no wifi) with an external, wired keyboard and wired mouse.
- A no-EMF earphone is used.
- The desk chair is positioned at least 30 inches away from the laptop screen.
- A landline is used, rather than a cellular telephone.
- There is no television or microwave oven.
- A low-EMF hair dryer is used on occasion.
- Lamps are unplugged when not in use.
- Almost everything in the house is unplugged at night to create a nearly EMF-free zone for sleeping.
- Before purchasing any electrical item, she uses a gaussmeter, and now also an RF meter, to measure EMFs.

St. of Hendin at 49-83; *Direct Testimony of Hendin ("Hendin Direct"), Dec. 19, 2019 Transcript,* at 47:16-25; 48:1-16; 49:16-20.

14. Judith Hendin's health was seriously impacted when a smart meter was previously installed on the house where she lives in 2012. *St. of Hendin* at 92-131.

15. Dr. Kracht said that Ms. Hendin reported "that she was experiencing symptoms after a UGI smart meter was installed." *St. of Kracht* at 3:36-37.

16. Research by Lamech demonstrated that symptoms experienced by people after exposure to a smart meter were almost exactly the same as symptoms experienced by Ms. Hendin after exposure to a smart meter. (Exhibit X11).

17. Ms. Hendin spent "considerable time working with UGI to determine when they installed a smart meter, but "they were unable to confirm" the date that the smart meter was installed. *St. of Hendin* at 5:95-98.

18. Ms. Hendin had been away in Europe from March 21 through April 26, 2012 and when returned home, continued to have symptoms. *St. of Hendin* at 5:98-101.

19. Ms. Hendin learned of the health effects of smart meters in mid-August, and contacted Dr. Kracht. *St. of Hendin* at 5:100-101.

20. Dr. Kracht issued a Letter of Medical Necessity to UGI and the smart meter was removed on September 16, 2012. *St. of Hendin* at 5:96-97; 103-104; Hendin Exhibit 2.

21. Ms. Hendin reported and [redacted] (Exhibit 1 (Conf.); Exhibit 9 (Conf.); *St. of Kracht* at 5:69).

22. Dr. Kracht diagnosed Ms. Hendin [redacted] *Cross Examination of Kracht, Dec. 19, 2019 Transcript,* at 86:5-10; (Kracht Exhibit 9).

23. Dr. Kracht's examination of Ms. Hendin [redacted] *St. of Kracht*, at 5:68-76.

24. Further supporting Dr. Kracht's eventual diagnosis, [redacted]

[redacted] *Id.*

25. Ms. Hendin also [redacted] *St. of Kracht* at 5:70-72; *Kracht Direct, Dec. 19, 2019 Transcript,* at 93:13.

26. Lamech explained that "people do not associate their symptoms with smart meter exposure," and, "[t]he ongoing campaign of the state government and power distributors to portray smart meters as safe has also contributed to this lack of knowledge." (Exhibit X11).

27. Smart meters and the associated communication network, including "Met-Ed's Itron advanced metering and communication system" produce radio frequency fields. *St. of Davis* at 3:13-15.

28. Emissions from smart meters are different from other forms of radio frequency radiation, such as from cell phones and wifi, in rate, intensity and duration. (Exhibit X17, p. 1513).

29. Smart meter emissions are frequent and can be emitted up to 190,000/day. (Exhibit X33).

30. In addition, numerous other entities, including foreign governments and two U.S. states have declared that electromagnetic frequency radiation is harmful. (Exhibit 37, 40)

31. Ms. Hendin has observed RF exposure at her neighbors and has used her meters to measure exposure. *St. of Hendin* at 145-151; Exhibit 3.

32. Met-Ed's meters operate on a mesh system. *Ahr Cross, Dec. 19, 2019 Transcript,* at 148:3-7; 17.

33. Met-Ed's witnesses never visited Ms. Hendin's residence, nor tested Ms. Hendin's residence. *Cross Examination of Israel ("Israel Cross"), Dec. 20, 2019 Transcript* at 225:17-23; *Ahr Cross* at 164:8-11; *Cross Examination of Davis ("Davis Cross"), Dec. 19, 2019 Transcript,* at 182:25; 183:1; 189:15.

34. Met-Ed's medical witness, Mark Israel, conducted no examination of Ms. Hendin, yet claims to have performed a "medical evaluation" of her. *St. of Israel* at 6:2-4.

35. Met-Ed's witness Dr. Israel has testified in dozens of smart meter cases on behalf of utilities, each time arguing in contravention to the treatment of the individual's physicians, and in support of the utility's position that the individual is not entitled to an opt out for any reason. *Israel Cross, Dec. 20, 2019 Transcript,* at 224:15-20.

36. Met-Ed did not provide any scientific studies showing the effects of smart meters on consumers.

37. There is widespread national and international concern about the deleterious effects of EMFs and smart meters on human health. *See e.g.*, (Exhibit 40 (124 pages of 50 Resolutions and Declarations, from 1998 to 2017, with many signatories, cautioning against the dangers of widespread exposure to EMFs, including smart meters)).

SUMMARY OF THE ARGUMENT

Ms. Hendin seeks to convince the Commission that she should not be forced to endure a smart meter at her home. The Public Utility Code requires that Met-Ed provide Ms. Hendin with safe and reasonable service. Ms. Hendin's only recourse to challenge Met-Ed is this proceeding.

As a regulatory proceeding involving review of Ms. Hendin's course of treatment from her physician, and the ways in which a smart meter installation will compel her to go against her physician's advice, the Commission should not require Ms. Hendin to prove medical causation.

Rather, the precautionary principle should be applied as is customary where the science is uncertain.

The Commission's interpretation of Act 129 of 2008 is wrong and unreasonable. The plain language of the statute and the legislative history make it clear that the General Assembly did not intend to prohibit opt outs.

The evidence presented by Met-Ed is not convincing that smart meters and their associated networks are safe. Met-Ed's witnesses lack credibility, and failed to consider vital, new scientific studies that demonstrate a link between exposure and health effects.

The Commission's forced imposition of a smart meter on Ms. Hendin violates her due process rights, and federal law requiring accommodations.

I. LEGAL ARGUMENT

A. The Public Utility Code Requires Safe, Reasonable and Adequate Service and Facilities for All Customers

Section 1501 of the Code requires utilities to provide safe service and facilities. 66 Pa. C.S. § 1501. Further, the Commission regulations require electric utilities to properly warn and protect the public from danger, and to exercise reasonable care to reduce the hazards to which customers may be subjected because of the utilities' provision of electric service and associated facilities such as smart meters. 52 Pa. Code § 57.28(a)(1). Moreover, the Code requires that electric utility companies are subject to steep civil penalties that accrue daily for violations of the Code, such as failure to provide safe service. 66 Pa.C.S. § 330 1(a)-(b).

The Commission has exclusive jurisdiction to adjudicate "issues involving the reasonableness, adequacy, and sufficiency" of a public utility's facilities and services. *See Elkin v. Bell of Pa.*, 420 A.2d 371, 374 (Pa. 1980) (citations omitted). Section 701 of the Public Utility

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

Accordingly, Ms. Hendin, as an individual consumer, must bring her complaint before the Commission as the sole option to prevent installation of a smart meter in her home. As set forth below, all Ms. Hendin need demonstrate is that Met-Ed is responsible for the problem identified in her complaint, *i.e.*, the demand to install a smart meter and associated communication network (which neither party contests) will cause unavoidable RF and EMF exposure, and that in Ms. Hendin's particular instance, Met-Ed's installation is going to cause her to suffer numerous symptoms. Outside of erroneous Commission determinations, there is no precedent to require Ms. Hendin to prove to a medical certainty, or to demonstrate a causal connection between undisputed RF exposure from the smart meter and her medical suffering.

B. In an Administrative Proceeding Ms. Hendin Need Only Prove the Weight of the Evidence, Not Medical Causation

Complainants in a smart meter case bear the burden of proving evidence "by a preponderance of the evidence," and that the utility "is responsible or accountable for the problem described in the complaint." *Kreider v. PECO Energy Co.*, Pa.P.U.C. Docket No. P-2015-2495064, (Sept. 3, 2015). Section 332(a) of the Public Utility Code (Code) provides that a complainant, as the party seeking affirmative relief from the Commission, has the burden of proof. 66 Pa. C.S. § 332(a). The burden of proof for actions before the Commission is the

"preponderance of the evidence" standard. *Suber v. Pennsylvania Com'n on Crime and Deliquency*, 885 A. 2d 678, 682 (Pa. Cmwlth. 2005) (*Suber*); *Samuel J. Lansberry, Inc. v. Pa. PUC*, 578 A.2d 600 (Pa. Cmwlth. 1990), *alloc. denied*, 529 Pa. 654, 602 A.2d 863 (1992) (*Lansberry*); *see also North American Coal Corp. v. Air Pollution Commission*, 279 A.2d 356 (Pa. Commw. Ct. 1971).

Pennsylvania law defines a preponderance of the evidence as "a more likely than not inquiry." *Crocco v. Pennsylvania Department of Health*, 214 A.3d 316, 321 (Pa. Commw. Ct. 2019); (*citing Borough of Pottstown v. Suber-Aponte*, 202 A.3d 173, 180 n.11 (Pa. Commw. Ct. 2019). Therefore, to establish a fact or claim by a preponderance of the evidence means to offer the greater weight of the evidence, or evidence that outweighs, or is more convincing than, *by even the smallest amount*, the probative value of the evidence presented by the other party. *See Se-Ling Hosiery, Inc. v. Margulies*, 364 Pa. 45, 48-49, 70 A.2d 854, 855 (1950) (emphasis added).

The existence of contrary evidence does not require the Commission to find against a complainant for lack of substantial evidence. The Commission requires facts to support an adjudication to be based on "substantial evidence." *Met-Ed Indus. Users Grp. v. Pa.P.U.C.*, 960 A.2d 189, 193 n.2 (Pa.Commw. Ct. 2008) (*citing* 2 Pa.C.S. § 704). Substantial evidence need only be such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Borough of E. McKeesport v. Special/Temporary Civil Serv. Comm'n*, 942 A.2d 274, 281 n.9 (Pa. Commw. Ct. 2008) (citation omitted). The "presence of conflicting evidence in the record does not mean that substantial evidence is lacking." *Allied Mech. and Elec., Inc. v. Pa. Prevailing Wage Appeals Bd.*, 923 A.2d 1220, 1228 (Pa. Commw. Ct. 2007) (citation omitted).

The Commission is a regulatory agency, and its role in administrative hearings differs from that used in a court of law, where a plaintiff is seeking damages for an injury. Here, the Commission and other agencies use a threshold of proof "reasonably lower than that appropriate in tort law." *Allen v. Pennsylvania Engineering Corp.*, 102 F.3d 194, 198 (5th Cir. 1996). In *Allen*, the Fifth Circuit explained that this "preventative perspective" or precautionary approach, results from the agency's consideration of public exposure to harm:

> Regulatory and advisory bodies such as IARC, OSHA and EPA utilize a "weight of the evidence" method to assess the carcinogenicity of various substances in human beings and suggest or make prophylactic rules governing human exposure. This methodology results from the *preventive perspective that the agencies adopt in order to reduce public exposure to harmful substances*. The agencies' threshold of proof is reasonably lower than that appropriate in tort law, which "traditionally make[s] more particularized inquiries into cause and effect" and requires a plaintiff to prove "that it is more likely than not that another individual has caused him or her harm."

Allen v. Pennsylvania Engineering Corp., 102 F.3d 194 (5th Cir. 1996) (emphasis added) (*citing Wright v. Williamette Industries, Inc.*, 91 F.3d 115. 1107 (8th Cir. 1996).

In smart meter related matters, the Commission has held that "[t]he Complainant will have the burden of proof during the proceeding to demonstrate, by a preponderance of the evidence, that [the utility] is responsible or accountable for the problem described in the Complaint." *Kreider v. PECO Energy Co.*, Docket No. P-2015-2495064, p. 18 (Order entered Sept. 3, 2015); *see also Romeo v. Pa. P.U.C.*, 154 A.3d 422, 429 (Pa. Commw. Ct. 2017) (finding that the smart meter complainant should have a hearing to try to prove his claim through "the testimony of others as well as other evidence that goes to that issue"). In considering what the burden of proof is in smart meter cases, the Commonwealth Court in *Romeo v. PaPUC*, 154 A.3d 422 (Pa.Commw. Ct. 2017), "did not discuss the meaning in Section 1501 of the words

'safe' and 'reasonable"' and nor does the Commonwealth Court require Romeo to prove causation of harm, in the tort law sense.

When presented with an individual challenging an AMI meter installation in his or her home, the Commission's determination must be based on the facts of the case, including the particular proposed placement of the meter and the individual. "The ALJ's role ... will be to determine *based on the record in this particular case,* whether there is sufficient evidence to support a finding that Complainant was adversely affected by the smart meter or whether [the utility's] use of a smart meter will constitute unsafe or unreasonable service in violation of Section 1501 under the circumstances in this case." *Kreider v. PECO Energy Co.,* Docket No. P-2015-2495064 at 23 (Order entered Jan. 28, 2016) (emphasis added) (citing *Woodbourne-Heaton,* 1992 Pa. PUC Lexis 160, at *12-13); *Frompovich v. PECO Energy Co.*, Docket No. C-2015-2474602, (Opinion and Order entered May 3, 2018 at 10). Although the Commission continually relies on the decades-old *Woodbourne Heaton* determination, that determination is inapposite to the smart meter proceedings. First, *Woodbourne Heaton* involved a transmission line, which exists only in a limited location, not attached to a residence, and from which individuals could remove themselves, unlike smart meters, which are inescapable and attached to one's residence. Further, *Woodbourne Heaton* was not tested at the appellate level.[1]

The Commission's standard should address the universally-accepted "thin skull" or "eggshell plaintiff" doctrine, because "*[t]here is almost universal agreement upon liability beyond the risk, for quite unforeseeable consequences, when they follow an impact upon the person of the plaintiff.*

[1] The issue of *Woodbourne-Heaton's* applicability in smart meter proceedings is currently before the Commonwealth Court on the consolidated cases in the *Povacz et al.* appeal, and as such is not discussed at length here.

> It is as if a magic circle were drawn about the person, and one who breaks it, even by so much as a cut on the finger, becomes liable for all resulting harm to the person, although it may be death.

W. Page Keeton et al., PROSSER AND KEETON ON THE LAW OF TORTS § 43 at 291 (5th ed.1984). The defendant takes the victim as found, even where the resulting harm suffered might be unforeseeable.[2]

Responsibility lies for the full extent of damages where the "physical condition of the other ... preexisting condition makes injury suffered greater than that which the actor as a reasonable man should have foreseen as a probable result of his conduct." RESTATEMENT (SECOND) OF TORTS § 461 (1965); *see also, Rardin v. T & D Mach. Handling, Inc.,* 890 F.2d 24, 28 (7th Cir.1989) (Once the individual establishes some injury, including aggravation of a preexisting condition, "the injurer takes his victim as he finds him and is therefore liable for the full extent of the injury even if unforeseeable ... even if ... [the victim], because of a preexisting injury sustains a much greater loss than the average victim would have...." *Figueroa-Torres v. Toledo-Davila,* 232 F.3d 270, 276 (1st Cir. 2000) (A defendant is responsible *even where the injuries suffered were not foreseeable for the defendant; finding* "The negligent actor is subject to liability for harm to another although a physical condition of the other ... makes the injury greater than that which the actor as a reasonable man should have foreseen as a probable result of his conduct.").

In *Povacz*, the Commission rejected the Complainant's argument that the correct standard is "potential for harm" or "capable of causing harm," because the Commission

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[2] One of the illustrations which runs through the English cases is that of the plaintiff with the "eggshell skull," who suffers death where a normal person would have had only a bump on the head;.... The defendant takes the plaintiff as he finds him. *See, e. g., Evans v. S. J. Groves & Sons Co.*, 315 F.2d 335, 347-48 (2d Cir. 1963) (Friendly, J.); *United States Fidelity & Guaranty Co. v. United States*, 152 F.2d 46, 49 (2d Cir. 1945) (L. Hand, J.); *The Jefferson Myers*, 45 F.2d 162 (2d Cir. 1930) (*per curiam*).

concluded it was a logical fallacy to equate any hazard with exposure to harm." *Povacz*, Docket No. C-2015-2475023 (Opinion and Order, March 28, 2019).[3] The Commission worries that the standard would place the utility in a position where no design, installation, operation, use or maintenance of an energized facility would reduce the "potential" for that facility to cause "harm." The Commission is concerned that this standard "would have dire consequences to the daily functioning and operation of public utilities and the provision of utility services within the Commonwealth." *Id.* The Commission need not be concerned. Here, the standard of proof applies only in the smart meter context, and only to particular individuals, such as Ms. Hendin for whom exposure to the AMI meter is deleterious because of her existing EMF sensitivity and its treatment. The Commission can easily protect Ms. Hendin from the danger by allowing an accommodation or "opt out" of the smart meter installation, and the use an analog meter. Accordingly, the Commission need not fear overreach.

Ms. Hendin has met the burden of proof of establishing by a preponderance of evidence that she will be adversely affected by the installation of a smart meter on her place of residence: her medical records show that she got sick when a smart meter was placed on her residence previously and that she recovered when it was removed.

C. The Precautionary Principle Requires the Commission to Shift the Burden of Proof for the Environmental Harm Consistent with Environmental and Regulatory Practice

Even if Ms. Hendin had not met the burden of proof of showing that EMFs from a smart meter installed on her home would cause her harm, the Precautionary Principle compels that the Commission require Met-Ed err on the side of precaution.

[3] The *Povacz* case is currently pending appeal in the Pennsylvania Commonwealth Court, with the consolidated smart meter cases in the briefing stage.

The Precautionary Principle provides a specific burden of proof to address fairness in situations where scientific studies can be cited on both sides of a controversy. As observed in the National Research Council's report on the *The Age of Expert Testimony: Science in the Courtroom* (NCR) (2002): "In toxic tort cases, the plaintiff has the burden of proof, and *a court may question the fairness of asking a plaintiff to suffer because of scientific uncertainty.*" (emphasis added).[4]

The Precautionary Principle provides that where a cause-and-effect relationship is not fully established scientifically, and an activity raises threats of harm to human health or the environment, precautionary measures should be taken. This Principle is the basis for environmental law and regulatory decision-making in many countries, including the United States. *See, e.g., Benner Township Water Authority v. Comm. of Pa., DEP, and Borough of Bellefonte*, 2017 EHB Docket No. 2016-042-M (Sept. 19, 2019)[5] at WL 4464395 at *11 ("[T]he existence of an unacceptable risk must be assumed when there is evidence of exposure to harmful materials and there is not enough information to rule out the likelihood of harmful effect ... this precautionary principle allows a regulatory authority to act where complete scientific inquiry is unavailable if the risk of not acting may lead to serious or irreversible consequences.); *Coolspring Twp. et. al. v. DER*, 1983 EHB 151; *quoting Defense Personnel Support Center v. DEP et al.*, 1998 EHB 512, 531-32.

"The Precautionary Principle encourages transparency of the risk assessment process on health risk of substances, both for public health and the environment. For example, in the

[4] THE AGE OF EXPERT TESTIMONY: SCIENCE IN THE COURTROOM (NCR) (2002) (Chapter 3, "The Nature of Expert Evidence," p. 11), available at https://www.nap.edu/read/10272/chapter/4

[5] WL 4464395 at *11 Attachment 1, and Available for download at http://ehb.courtapps.com/efile/documentViewer.php?documentID=39139&opinion=true.

environmental law arena, especially where the exposures involve individual consumers and children, burden shifting has been embraced (*see, e.g.*, California's Prop 65 and the Food Quality Protection Act of 1996 ("FQPA")).

The European Union's landmark regulatory scheme for toxic substances, the Registration, Evaluation, Authorization and Restriction on Chemicals, "REACH" espouses the precautionary principle, shifting the responsibility from authorities to industry, to ensure a high level of protection for human health and the environment.

The precautionary principle requires a recognition that the party attempting to alter the status quo must bear the evidentiary burden. James M. Olson, "Shifting the Burden of Proof," 20 Envtl. Law p. 891 at 898 (1990).

The burden of proof is traditionally placed on those attempting to alter the status quo but has been misapplied in environmental cases. As recognized in Barton, in instances where parties are seeking relief from a nuisance or an injunction, the burden of proof should be shifted from the plaintiff to the defendant. Barton, Charmian, "The Status of the Precautionary Principle in Australia Its Emergence In Legislation and as a Common Law Doctrine" 22 Harv. Env. L.Rev. 509 at 549 (1998).

This test was applied in *Reserve Mining Co. v. EPA*, 514 F.2d 492, 520 (8th Cir. 1975). *See also TVA v. Hill*, 437 U.S. 153 (1978) (applying the Endangered Species Act); *Lead Indust. Ass'n v. EPA*, 647 F.2d 1184, (cert denied) 449 U.S. 1042 (1980)(applying the Clean Air Act and required regulatory review); *Beanal v. Freeport-McMoran Inc.*, 969 F. Supp. 362 (E.D. La. 1997); Daniel Bodansky, *The Precautionary Principle in US Environmental Law*, *in* INTERPRETING THE PRECAUTIONARY PRINCIPLE, (Timothy O'Riodan & James Cameron

eds.) 1994, at 203-28, and Gregory D. Fullem, *The Precautionary Principle: Environmental Protection in the Face of Scientific Uncertainty*, 31 Willamette L. Rev. 495, 508-13 (1995).

According to the Precautionary Principle, Met-Ed should carry the burden of proof in this case, to prove unequivocally that smart meters are safe for long-term human health. Met-Ed concedes that Dr. Israel did not base his opinion on any smart meter studies. Further, the regulatory guidelines from the FCC are woefully out of date, and the ANSI standards do not address smart meter emissions of any kind. Therefore, no such proof exists.

The precautionary principle requires that, if there is a strong suspicion that a certain activity may have environmentally harmful consequences, it is better to control that activity now rather than to wait for incontrovertible scientific evidence.

The Commission is not charged with expertise in the field of medical causation, nor should Ms. Hendin be. It is beyond the jurisdiction of the PUC to make a determination about an individual's disability under the ADA. *Mindy Jaye Zied & Binnie A. Zied*, No. P-2015-2520474, 2016 WL 1689644, at *6 fn. 4 (Apr. 21, 2016) (Commission does not have jurisdiction a determination of a violation or appeal rights under the ADA). The use of expert witnesses presents a fundamental paradox, where judges may possess less knowledge of the specialized subject matter than the experts they are evaluating. *See, e.g., Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311,1316, (9th Cir. 1995) ("[W]e are largely untrained in science and certainly no match for any of the witnesses whose testimony we are reviewing.").[6] This

[6] *See also, Daedelus: Journal of the American Academy of Arts & Sciences*, "Science and the Legal System." (Fall 2018), a book Ms. Hendin brought to the in-person evidentiary hearing, and which contains relevant essays on law and science: "Improving Judge & Jury Evaluation of Scientific Evidence," by Valerie P. Hans and Michael J. Saks; "Science, Common Sense & Judicial Power in U.S. Courts," by Sheila Jasanoff; "The Supreme Court & Science: A Case in Point," by Linda Greenhouse.

problem persists here, where the Commission is not charged with the technical knowledge of effects on human health.

Ms. Hendin's testimony satisfies the burden of proof for an administrative proceeding by showing that if Met-Ed installs an RF-emitting smart meter in her home, it will cause unsafe and unreasonable service. Ms. Hendin showed that the weight of the evidence, including the thousands of studies from the BioInitiative Report, and the most recent U.S. studies from the National Toxicology Program, show, contrary to Mr. Israel's outdated testimony, that levels of RF exposure have not been proven to be safe.

There has been much discussion about whether the EMFs emitted by a smart meter are the cause of the adverse health effects. However, the *Povacz* case makes it clear that the claimant need not prove that EMFs that emanate from smart meters are unsafe to her, only that the installation of a smart meter attached to her home would cause or exacerbate ill health effects.

It is impossible for a complainant to prove her EHS because there is no available diagnostic testing; rather, treating physicians use differential diagnosis to identify the ailment. If there were an available diagnostic test, Ms. Hendin would have done it—[redacted] *St. of Hendin* at 10:215-227. Ms. Hendin searched for a diagnostic test for electromagnetic sensitivity and the effects of EMFs on health; however, Great Plains Laboratory indicated that nothing is currently in research and development in this area, and that they knew of no other companies that were developing such testing at this time. *Id.* at 11:230-236.

D. The Code and the Act 129 Must Be Considered Together In Light of The Precautionary Principle As Safe and Reasonable

Act 129 is about providing options to the consumer, not imposing smart meters on every consumer in direct contravention to a doctor's order. The Commission's interpretation of Act 129, (discussed in Section IV.B,) is antithetical to that. Act 129 opens with the following public policy declaration: "The health, safety and prosperity of all citizens of this Commonwealth are inherently dependent upon the availability of adequate, reliable, affordable, efficient and environmentally sustainable electric service at the least cost, taking into account any benefits of price stability over time and the impact on the environment."

Second, looking at the cost benefit analysis, in the context of opt outs, where the statute is silent, and the utility's implementation plan is silent, it does not make sense to interpret the statute as making installation mandatory.

Where, as here, an individual has a demonstrated medical reason for RF avoidance, coupled with a physical limitation in the home that would elevate the typical RF exposure, the Commission must permit an opt out accommodation.

II. Smart Meters Are An Unsafe Utility Service That Violates Section 1501 of the Public Utility Code

When the Commission has addressed violations of Section 1501 and a utility's failure to provide safe, reasonable and adequate service, the agency has investigated fully and ruled in favor of the Complainant. *See, e.g., Young v. National Fuel Gas Distribution Corp.*, Docket No. C-2008-2059233, Pa. PUC (2009) (Commission ordered utility to remedy unsafe condition resulting from installation of a gas meter at individual consumer's residence under Section 1501 of the Public Utility Code "Code."); *BIE v. West Penn Power Co.,* Docket No. C-2012-2307244 (Jan. 9, 2014) (Utility fined $86,000 for failure to provide safe and reasonable service in

accordance with Section 1501 of the Code, where consumer was killed when a high voltage line fell on her yard after several complaints about unsafe conditions at her property).

Nothing in Act 129 compels the Commission to violate Section 1501 to accomplish the goals of Act 129. The Commission concedes that it must read the two statutes in tandem. *See, e.g.*, Implementation Order (Default Service and Retail Electric Markets, Docket No. L-2009-2095604 (Order issued Oct. 4, 2011) (The Commission promulgates its Act 129 regulations in accordance with, inter alia, Section 1501 of the Public Utility Code). The Commission also required that smart meters have the ability to disconnect and reconnect remotely because that functionality provides "safety, efficiency and cost benefits." *See*, Docket No. M-2009-2092655(Implementation Order issued Jan. 24, 2009) at 18.

A. Pennsylvania is the only state in the United States that fails to offer an opt out.

Pennsylvania is the only state in the nation that has heard cases about smart meters causing harm and has still not ruled to allow an opt out.[7] Over 40 states offer consumers the ability to opt out of smart meter installation[8] and some states offer opt out programs that vary by utility[9] in particular locales.

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[7] Complainant was permitted only an initial inquiry to Mr. Ahr about opt-out offerings in various other states in which he testified that he worked. *Ahr Cross, Dec. 19, 2019 Transcript* at 156-157. Ms. Hendin had worked with the National Conference of State Legislatures in Washington, D.C., to compile a comprehensive list of states that offer smart meter opt outs and provides here the docket information for judicial notice. See 52 Pa. Code § 5.408; *See e.g.*, 20 V. S.A. §2811 (Vermont); see also Attachment 1.

[9] Official notice may be taken of obvious and notorious facts, and a broader spectrum of facts, not simply those obvious to an average person. *See Ramos v. Pennsylvania Board of Probation and Parole*, 954 A.2d 107, 110 (Pa. Commw. Ct. 2008) (quoting *Falasco v. Pennsylvania Board of Probation and Parole*, 521 A.2d 991, 995, n.6 (Pa. Commw. Ct. 1987) ("'Official notice' is the administrative counterpart of judicial notice and is the most significant exception to the exclusiveness of the record principle, allowing an agency to take official notice of facts which are obvious and notorious to an expert in the agency's field and those facts contained in reports and records in the agency's files, in addition to those facts which are obvious and notorious to the average person; thus, official notice is a broader doctrine than is judicial notice and recognizes the special competence of the administrative agency in its particular field and also recognizes that the agency is a storehouse of information on that field consisting of reports, case files, statistics and other data relevant to its work.")

The Commission in *Povacz* acknowledged that the Act 129 and Section 1501 must be read *in pari materia* (as if they were one law):

> If the General Assembly intended for ECDs to invest and maintain two separate sets of meter systems based on customer preference – an analog system separate from an AMI system as part of furnishing "adequate, efficient, safe, and reasonable service and facilities"[10] at "just and reasonable" rates charged to customers, it would have plainly stated as much in Act 129, but it did not.

Povacz v. PECO Energy Company, Docket No. C-2015-2475023 (Opinion and Order entered January 24, 2013, pp. 94-95). The Commission suggested that the legislature's silence in Act 129 prohibited it from recognizing an opt out for safety reasons, even though utilities are offering opt outs in in nearly every other state. And it's already being done by Med-Ed, in Ohio[11] and Maryland. MD PSC Order No. 86200.[12]

The North Carolina PUC's decision provides that anyone with a physician's letter can opt out with no fee, and others may opt out with payment of a fee.[13] It is also similar to Ms. Hendin prior experience with UGI gas company when she was allowed to opt out when her treating physician sent UGI a Letter of Medical Necessity. (*St. of Hendin*, Hendin Exhibit 2).

While the Commission suggests that maintaining "two sets" of meters for customer preference, and allegedly contrary to the legislative intent, it is the practice of utilities in nearly all the other states to do so, and Met-Ed's parent company is doing so.

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[10] 66 Pa.C.S. § 1501.

[11] *Ohio:* FirstEnergy's website says:
"FirstEnergy's [smart meter] program in Ohio remains voluntary.
"What if you don't want a smart meter? You can refuse the upgrade to a smart meter, but that decision comes with a $24/month charge, approved by the Public Utility Commission of Ohio to cover costs associated with meter readers. If your meter has already been upgraded, you can have an analog meter re-installed for a one-time fee of $43."
Available online from: https://www.ohenergyratings.com/blog/2018/06/14/smart-meter-rules-ohio/

[12] In the Matter of Potomac Electric Power Co. and Delmarva Power and Light Co. Request for Deployment of Advanced Meter Infrastructure, Maryland P.S.C. Case No. 9206, Order 86200 (Fed. 26, 2014).

[13] *In the Matter of Application of Duke Energy Carolinas, LLC for Approval of Advanced Metering Infrastructure Opt-Out Tariff,* North Carolina Utilities Commission, Docket No. 100, Sub 147, (Order) (June 22, 2018).

III. Ms. Hendin's Bases for Concern Are Evidence That Med-Ed's Proposed Smart Meter Installation is Unreasonable.

The installation of a smart meter at Ms. Hendin's home is unsafe and unreasonable because EMF emissions from a smart meter will adversely affect her health.

A. Smart Meters emit electromagnetic frequency radiation, which affects human health.

Smart meters emit short bursts of high frequency electromagnetic radiation. Years ago, researchers thought that the effects of electromagnetic fields (EMFs) were purely "thermal," that is, they heated body tissues. But studies[14] now show that "non-thermal" effects cause biological harm far beyond that.

B. The BioInitiative Reports Support the Conclusion That Electromagnetic Frequencies have tangible adverse effects on health and are therefore, unsafe.

The BioInitiative Report[15] (Exhibit X17, X18, X19) is considered a landmark in understanding the effects of electromagnetic frequencies on health. The Introduction to the BioInitiative Report begins:

> Electromagnetic radiation (EMR) or electromagnetic fields (EMFs) are the terms that broadly describe exposures created by the vast array of wired and wireless technologies that have altered the landscape of our lives in countless beneficial ways. However, these technologies were designed to maximize energy efficiency and convenience; not with biological effects on people in mind. Based on new studies, there is growing evidence among scientists and the public about possible health risks associated with these technologies.

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[14] Focusing solely on thermal effects ignores the fact that tissue damage can be done without heating the tissue, in what are called "non-thermal effects." Scientific literature demonstrates harm at power densities of radio frequency radiation too low to heat tissue. At least one prominent mechanism has been identified, namely activation of the very sensitive voltage-gated calcium channels (VGCCs) found in most living things, but found in the highest density in nerve tissue in the human body. Inappropriate activation of VGCCs causes the release of calcium ions with a +2 charge that leads to a cascade of reactions that can include free radical production, DNA strand breakages, and oxidative stress, all of which set the stage for a multitude of adverse health effects, from chronic pain to cancer. (VGCC's are explained in detail in Exhibit X17, p. 1285-1287 of pdf.)

[15] See fn. 9; Official notice as administrative counterpart of judicial notice, allowing agency to take official notice of facts which are obvious and notorious to an expert in the agency's field and those facts contained in reports and records in the agency's files.

Exhibit X17, *BioInitiative Report 2012*, "Summary for the Public," p. 3.

The BioInitiative Report is a presentation of thousands of scientific studies about the effects of electromagnetic frequencies on health. Despite claims made by Dr. Israel, almost everything in the initial edition was later published in peer-reviewed journals, such as *Pathophysiology* and *Reviews on Environmental Health* (Exhibit X17). Further editions of the BioInitiative Report presented studies about the effects of electromagnetic frequencies on health that had already been published in peer-reviewed scientific journals. The volume of studies considered by the BioInitiative Report alone make it unreasonable to conclude that there is no effect or to dismiss it out of hand.

One of the many merits of the BioInitiative Report is that it is updated regularly, in contrast to the dated studies presented by Dr. Israel. Initially published in 2007, the 2012 edition of the BioInitiative Report was prepared by 29 authors from ten countries, ten of whom held medical degrees (M.D.s) and 21 of whom had Ph.D.s., and along with the 2014 supplement, added more than 1800 new studies to the report. (Exhibit X17, p. 63). Further updates were done in 2014, 2017, and 2019. The 2019 edition increased the total number of studies considered in the scientific review to approximately 5,000.

Studies in the BioInitiative Report were coded as to whether they found effects (E) or no effects (NE) of radio frequencies on health. Charts comparing the number of scientific studies from the 2017 and 2019 Reports that showed effects versus no effects looked at three different aspects of effects of radio frequencies on health: neurological, genetic, and oxidative stress (free radicals). In each category, the number of studies that found effects was significantly higher than those that did not find effects:

- In 305 neurological studies, 72% of studies found effects, 28% found no effects.

- In 76 genetic studies, 64% of studies found effects, 36% found no effects.
- In 225 oxidative stress studies, 90% of studies found effects, 10% found no effects.

These charts make it clear that, by a preponderance of the evidence, studies show that radio frequency radiation does affect health. (Exhibit 19). Dr. Israel's cherry-picking of studies that allegedly found no effects is not a complete and true analysis of the state of current research.

Contrary to Dr. Israel's unsupported conclusions, the BioInitiative Report has received accolades internationally. As examples: "The BioInitiative reports are global milestones with respect to a comprehensive review of biological effects and health effects of low-intensity electromagnetic radiation as well as the conclusions and recommendations given for the public." (European Academy for Environmental Medicine, 2016); "The international BioInitiative Working Group (2007) documented a broad range of health risks based on more than 1500 scientific studies. Since then numerous studies have confirmed the worrisome results and shown that current exposure limits that only consider damage caused by thermal effects are inadequate." (International Doctors' Appeal, 2012) (Exhibit X19).

The BioInitiative Report is an objective, balanced reflection of the current state of scientific knowledge concerning the effects of EMFs on health. It includes the majority of studies done worldwide, no matter what the findings: it includes studies that show that EMFs cause biological harm, as well as studies that show no effect. In fact, most of the 12 studies that Dr. Israel cited in his rebuttal testimony are included in the BioInitiative Report.

C. Smart meters emit radiation differently than other radio frequency devices

This legal case focuses on "radio frequency radiation (RF)," the kind of electromagnetic frequency (EMF) that is emitted by wireless devices such as cell phones, wifi, cell towers, and smart meters. But smart meters are different: although they emit radiation like these other wireless devices, the radiation is emitted frequently and in very brief bursts.

Ms. Hendin measured two minutes of radiation from her neighbor's smart meter (*St. of Hendin*, Hendin Exhibit 3), and estimated an average of 2,880 emissions per day. To take these measurements, she used a Cornet ED88T meter, "one of the most highly recommended meters" for the general public." *Cross Examination of Hendin, Dec. 19, 2019 Transcript,* at 73:21-22. As Davis admits, this reading might not be totally accurate because "most of these...meters don't really have the capability to capture those very small emissions." *Direct Examination of Davis ("Davis Direct"), Dec. 19, 2019 Transcript* at 175:21-22. In other words, the number of emissions per day that Ms. Hendin measured could actually be much higher. *St. of Hendin,* Exhibit 3.

For a more accurate assessment, the amount of emissions from a smart meter was submitted by Pacific Power and Gas (PG&E) in a court-ordered report in California. In a 24-hour period, a smart meter was emitting radiation bursts at a rate of 9,600 times per day, with a maximum daily transmission of 190,000 emissions. (Exhibit X33). These specific numbers may vary by make of smart meter, yet all generate brief, frequent bursts. (Exhibit X17, p.1513). These numbers can be used to determine yearly exposure: 9,600 daily bursts amounts to 3 ½ million hits a year, while 190,000 daily bursts amounts to more than 69 million hits a year.

Dr. Davis said "a Smart Meter only emits...infrequently." *Direct Testimony of Davis, December 19, 2019 Transcript,* at 175:19-20. Similarly, Met-Ed/FirstEnergy's "Smart Meter Radio Frequency Fact Sheet" states, "RF exposure from a smart meter is far below – and more infrequent – than other electric devices." (Exhibit 32). The numbers show that these bursts cannot be described as "infrequent."

Because the bursts of radiation are short (just a few 10's of milliseconds long), if one were to look only at the length of time during which RFs are being emitted, the average intensity

is indeed low; however, the peak intensity of these emissions, even at ten feet away, is at a level known to cause biological harm. (Exhibit X1, p.1). The American Academy of Environmental Medicine states, "The literature raises serious concern regarding the levels of radio frequency...or extremely low frequency ...exposures produced by 'smart meters' to warrant an immediate and complete moratorium on their use and deployment..." *Id.* Furthermore, they are intermittently going on and off like sharp pulses 24 hours a day, even through the night, at a time when people are normally resting and recovering, not dealing with further stress.

Met-Ed relies on evidence about the *general* effect of radiation, and presumes that the radiation from smart meters is the same. But the sharp emissions, happening thousands of times a day, and millions of times a year, are at intensity levels at which biological harm occurs to living organisms. (Exhibit X17).

Most research has been done on radio frequencies in general, not on smart meters specifically, which means that the distinctive characteristic of smart meters, namely radiation bursts at frequent intervals, has not been factored into the understanding of the effects of smart meters on health. Dr. Israel agreed, stating, "There are no studies addressing the effect of radio frequency fields from smart meters on heart rate." *St. of Israel* at 16:1-2. The lack of such studies means that human beings are like guinea pigs being subjected to an untested technology.

One study is particularly relevant. At the Commission level, in the *Povacz* case now pending at the Commonwealth Court, considerable attention was given to the anticipated results of a study being conducted by the National Toxicology Program[16] on the effects of cell phone radiation on health. *Maria Povacz vs. PECO Energy Co.,* C-2015-2475023 Order, page 54. Dr. Davis argued at the time that because the NTP report was unpublished it should be given "little

[16] NTP is an inter-agency program run by the United States Department of Health and Human Services, and is headquartered at the National Institute of Environmental Health Sciences (NIEHS).

or no weight" and that once published "results will need to be analyzed and integrated in the context of all other existing research on RF exposure and cancer endpoints." *Id.*

The NTP study, conducted over two years, exposed rats to real GSM and CDMA cell phone radiation signals in the same frequency band (900 MHz) as that used by the ITRON meters commonly being deployed in Pennsylvania. The results of the study are in. The November 2018, NPT Report concluded that there is:

> **Clear evidence of tumors in the hearts of male rats.** The tumors were malignant schwannomas.

(Cross Examination of Israel, January 24, 2020 Transcript, at 279:3-6. In a separate study by NTP scientist Smith-Roe, published in 2019 (Exhibit X16), results of exposure to cell phone radio frequency radiation found significant increases in DNA damage in the frontal cortex of male mice, leukocytes of female mice, and hippocampus of male rats. *Id.* at 274:13-16.

D. Evidence of similar symptoms

Despite the lack of specific studies measuring the effects of smart meters on health, there is a large body of evidence showing that people often experience similar symptoms when exposed to smart meters.

Many people who do not experience symptoms with cell phones, wireless routers, or other RF-emitting devices, experience symptoms when a smart meter is put on their home. (Exhibit X11). In a published, peer-reviewed study, Lamech reported the development of symptoms after smart meters were installed in Australia:

> In 2006, the government in the state of Victoria, Australia, mandated the rollout of smart meters in Victoria. By August 2013, 142 people had reported adverse health effects from wireless smart meters by submitting information on an Australian public Web site using its health and legal registers.
> RESULTS: The most frequently reported symptoms from exposure to smart meters were (1) insomnia, (2) headaches, (3) tinnitus, (4)

> fatigue, (5) cognitive disturbances, (6) dysesthesias (abnormal sensation), and (7) dizziness. The effects of these symptoms on people's lives were significant.

(Exhibit X11). Studies also show that these symptoms persisted several months after the removal of the smart meter, as Ms. Hendin also experienced. One explanation is that radio frequency exposure causes the generation of free radicals and oxidative stress, causing cellular damage, and that damage accumulates over time. (Exhibit 17). The Lamech study also showed that smart meters can increase people's susceptibility to EMFs. It states: "Interestingly, the vast majority of Victorian cases did not state that they had been sufferers of electromagnetic hypersensitivity syndrome (EHS) prior to exposure to the wireless meters, which points to the possibility that smart meters may have unique characteristics that lower people's threshold for symptom development." (Exhibit X11)

E. Ms. Hendin is sensitive to EMFs

Ms. Hendin is sensitive to EMFs in general, [redacted]

[redacted]

Ms. Hendin proactively takes many precautions to avoid exposure to electromagnetic frequencies, and has been doing this for 20 years. "[I]n fact, my whole house office is a no-EMF zone as much as is humanly possible." *Hendin Direct, Dec. 19, 2019 Transcript* at 47:22-25. Ms. Hendin travels a great deal, primarily for teaching, and takes precautions to protect herself from EMFs. Her treating physician wrote her a letter on June 29, 2013, stating that she is not to be exposed to airline security screening machines, which emit EMFs. *Id.* at 44:11-16.

For her computer, she carries various wired devices, as well as an Ethernet cable to connect to the internet in order to avoid using wifi. *Id.* at 48:24-25; 49:1-15. In hotels, she unplugs devices such as clock radios, microwaves, coffee machines, and televisions. *St. of Hendin* at 4:85-90.

Davis suggested that the RFs emitted by Ms. Hendin's cell phone are comparable to those emitted by a smart meter; however, he gave no evidence to support this claim. Dr. Davis guessed incorrectly at how much time Ms. Hendin uses her cell phone: "...if I estimate that she used her phone for ten minutes every day..." (*Davis Direct, Dec. 19, 2019 Transcript* at 174:16-17); or one minute a day. *Id.* at 25; 175:1. As Ms. Hendin explained, her cell phone is for emergency use only, and she uses it so infrequently that her Virgin Mobile account accumulated eleven quarters (the equivalent of almost 3 years) of credit due to lack of use. *Hendin Direct, Dec. 19, 2019 Transcript.* at 3:57; 3:61-68; 50:2-7.

In addition, [redacted] Exhibit X40, p. 14, 37, 42, 60, 90).

Ms. Hendin already suffered previous symptoms from a previous smart meter. After UGI Utilities, Inc. installed a smart meter on Ms. Hendin's residence, [redacted] (Exhibits 9, 10, 11, *St. of Hendin* 180-182, *Hendin Direct, Dec. 19, 2019 Transcript* at 29:11-18. [redacted] *Hendin Cross, Dec. 19, 2019 Transcript* at 35:24-25; 36:1-8.

F. Previous symptoms from smart meter

It is not coincidental that Ms. Hendin experienced [redacted] *Hendin Direct, Dec. 19, 2019 Transcript* at 29:17. The appearance of these symptoms, along with the fact that they cleared up once the smart meter was removed, makes it clear that Ms. Hendin's health was affected by the installation of a smart meter on her home. Ms. Hendin has been able to turn off other sources of RF radiation in her home, such as her computer and cell phone. But a smart meter has no turn-off option, and

would emit this incredibly frequent radiation every single day, all day and all night, causing her harm.

G. Met-Ed's Lack of Evidence for the Safety Makes It Unreasonable for Met-Ed to Force Her to Accept A Smart Meter

There is a basis here to conclude that Ms. Hendin's health is at risk if she were to be exposed to Met-Ed's smart meter at her home because of the numerous peer-reviewed and epidemiological studies. *Israel Cross, Jan. 24, 2020, Transcript* at 279:3-5; X11, X14, X15, X16, X17- 19). Met-Ed has a moral, ethical, and legal obligation to be sure that any new technological device it brings to people's homes, without their consent, is completely safe. Met-Ed relies on the Federal Communications Commission ("FCC") guidelines as proof that smart meters are safe. Organizations and physicians worldwide have said that smart meters exceed healthy radiation limits, and have repeatedly urged the FCC to reassess the guidelines. (Exhibits 5, 7, 31, 40, X1, X2, X13, X17). The American Academy of Environmental Medicine pointed out that "existing FCC guidelines for RF safety that have been used to justify installation of smart meters...are obsolete.... The FCC guidelines are therefore inadequate for use in establishing public health standards." (Exhibit 6; Exhibit X13)(The American Academy of Pediatrics, with 67,000 members, "supports the reassessment of radiation standards for cell phones and other wireless products.")).

H. The International Consensus Makes It Unreasonable for Met-Ed to Force Ms. Hendin to Accept a Smart Meter

International organizations have concluded that there is a basis to conclude that there is a health risk to Ms. Hendin because of the numerous peer reviewed experimental and epidemiological studies. There is widespread national and international concern about the deleterious effects of EMFs and smart meters on human health. Exhibit 40 provides 124 pages of

50 Resolutions and Declarations, from 1998 to 2017, with many signatories, cautioning against the dangers of widespread exposure to EMFs, including smart meters. The world has been aware for a long time of the damaging effects of smart meters, and the suffering many people endure with exposure to electromagnetic frequencies. In 2016, the European Academy of Environmental Medicine (EUROPAEM) published "Guidelines for the Prevention, Diagnosis and Treatment of EMF-Related Health Problems and Illnesses. As explained in those guidelines:

> New exposures like electromagnetic fields (EMF) studies, empirical observations, and patient reports clearly indicate interactions between EMF exposure and health problems. Individual susceptibility and environmental factors are frequently neglected. New wireless technologies and applications have been introduced without investigation of their health effects, raising new challenges for medicine and society.

(*St. of Hendin* at 11:243-251).

IV. Met Ed's Response to the Request to Refuse Installation of a Smart Meter is Wrong

A. Met-Ed Fails to Provide Safe Service or to Warn Customers such as Ms. Hendin of Hazards

Section 1501 of the Code requires utilities to provide safe service and facilities. 66 Pa. C.S. § 1501. Further, the Commission regulations require electric utilities to properly warn and protect the public from danger, and to exercise reasonable care to reduce the hazards to which customers may be subjected because of the utilities' provision of electric service and associated facilities such as smart meters. 52 Pa. Code § 57.28(a)(1). Moreover, the Code requires that electric utilities companies are subject to steep civil penalties that accrue daily for violations of the Code, such as failure to provide safe service. 66 Pa.C.S. §330 1(a)-(b).

B. The Commission's Interpretation of Act 129 Violates the Plain Meaning Of The Act

The Commission's interpretation of Act 129 and Section 1501 of the Code violates the plain meaning of the statutes, the basic rules of statutory construction because it results in an absurd, unreasonable and impossible interpretation.

The rules of statutory construction set forth under the Statutory Construction Act. *See* 1 Pa. C.S. § 1921 ("The object of all interpretation and construction of statutes is to ascertain and effectuate the intention of the General Assembly"); *see also* 1 Pa. C.S. § 1922(1) (it is presumed "[t]hat the General Assembly does not intend a result that is absurd, impossible of execution or unreasonable"). The Commission is an independent administrative commission with the "general administrative power and authority to supervise and regulate all public utilities doing business in the Commonwealth" and is empowered by the Pennsylvania General Assembly to "make *regulations, not inconsistent with law, as may be necessary or proper in the exercise of its power* or performance of its duties." 66 Pa.C.S. § 501(b).

In 2008, the General Assembly enacted Act 129, 66 Pa.C.S. Omnibus Amendments Act of October 15, 2008, P.L. 1592, ("Act 129") which provides:

> (f)(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 request.
>
> (ii) In new building construction.
>
> *(iii) In accordance with a depreciation schedule not to* exceed 15 years.

66 Pa.C.S. 2807(f)(2). On June 24, 2009, the Commission outlined the standards each smart meter plan must meet and provided guidance on the procedures to be followed for submittal, review, and approval of all aspects of each smart meter plan. Smart Meter Procurement and Installation, Docket No. M-2009 2092655 (hereinafter "Implementation Order"). The Commission incorrectly interpreted the intent of the General Assembly to require all covered

electric distribution companies ("EDCs") to deploy smart meter systemwide within 15 years, by engaging in a tortured reading of Act 129, and the phrase "in accordance with a depreciation scheduled not to exceed 15 years."

On March 3, 2011, *Negley v. Metropolitan Edison Company*, Docket No. C-2010-2205305 (Order Adopted December 15, 2010, Initial Decision issued January 3, 2011), the Commission approved the Administrative Law Judge recommendation to dismiss a complaint opposing installation of smart meters for legal insufficiency. ALJ Colwell concluded that Act 129 of 2008 authorized the installation of smart meters by electric distribution companies ("EDCs") without exemptions for customers for installation or charges. In addition, ALJ Colwell found that Act 129 of 2008 did not empower the Commission to allow customers to opt out of having smart meters installed at their residences. The Commission has continued with this tortured reading of Act 129 requiring consumers to accept smart meters regardless of "the record in this particular case" or any harm they identify.

C. Act 129 Permits Opts Outs

Act 129 of 2008 requires EDCs to file smart meter technology procurement and installation plans with the Commission for approval. 66 Pa.C.S. § 2807(f). The Commission's Implementation Order of June 2009,[17] Met-Ed's Smart Meter Deployment Plan,[18] Pennsylvania's legislative history and accounting and tax authorities and definitions demonstrate the opt outs are permitted, and that the Commission's present interpretation of the plain language to contrary is not correct.

[17] Docket No. M-2009-2092655.

[18] Docket No. M-2013-2341990; Met-Ed's Smart Meter Deployment Plan is a joint deployment plan with Pennsylvania Electric Company (Docket No. M-2013-2341994), Pennsylvania Power Company (Docket No. 2013-2341993) and West Penn Power Company (Docket No. 2013-2341991). For purposes of this document, it will be referred to as Met-Ed's Deployment Plan.

Nothing in Act 129 addresses opt outs or prohibits EDCs from allowing opt out from its smart meter deployment plans. The only section of Act 129 that discusses how technology "shall be furnished" is Section 2807(f). Although other parts of Act 129 include definitions of smart meter technology, including that it shall enable time-of-use rates,[19]there is nothing concerning opt outs.

The Commission, however, interprets the plain language of Section 2807(f)(2)(iii) as a smart-meter mandate, and has aided and abetted most EDCs to force smart meters on all customers, even those who object for medical reasons based on his or her doctor's advice. Commission's Implementation Order of June 2009 ("Implementation Order"). The Implementation Order[20] states:

> The Commission believes that it was the intent of the General Assembly to require all covered EDCs to deploy smart meters *systemwide when it included a requirement for smart meter* deployment "in accordance with a depreciation schedule not to exceed 15 years."

Pa. PUC Docket No. M-2009-2092655 at p 14. The Implementation Order also explains that balance is the goal of Act 129:

> *It should also be noted that Act 129 uses the language* "not to exceed 15 years." An EDC is encouraged to expedite the deployment process if it will provide increased customer benefits in a cost-effective manner. Again, the *primary goal* of the EDC deployment plan should be to implement a deployment and installation schedule that best *balances* the overall efficiency and timeliness of the smart meter installations *with the costs incurred.*

Id. The Commission, and now the EDCs override the plain statutory language of § 2807(f)(2)(iii) by excluding the possibility of opt outs from smart meter deployment where the statute had

[19] As smart meters are provided to those who request one, and in new building construction, time of use rate requirements are honored.
[20] Docket No. M-2009-2092655

merely imposed a depreciation schedule on deployment. The Commission interprets furnishing of smart meters "in accordance with a depreciation schedule not to exceed 15 years" to mean covered EDCs must force smart meters on all customers within 15 years. In addition, the Commission conflates furnishing smart meters with removal of analog meters, when, in fact, the Act is silent on currently deployed analog meters.

Depreciation Is an Accounting Term That Means An Allowance for Wear and Tear, Obsolescence, or Exhaustion, Not Mandatory Installation.

Act 129, Section 2807, subparagraph (f)(2)(iii) states:

> Electric distribution companies shall furnish smart meter technology as follows ...in accordance with a depreciation schedule not to exceed 15 years.

The Commission has interpreted this as a mandatory roll-out of smart meters within 15 years; however, this interpretation not only lacks common sense, but also ignores a key term found in the law – "depreciation." Since "depreciation" is an accounting or tax term, it is necessary to consider how applicable authorities define the term "depreciation."

The term depreciation is not ambiguous. BLACK'S LAW DICTIONARY defines depreciation as "spreading out the cost of a capital asset over the estimate useful life." BLACK'S LAW DICTIONARY, Sixth Ed. 1990). The Federal Energy Regulatory Commission ("FERC")[21] defines the term "depreciation" similarly. "Depreciation" under FERC's Uniform System of Accounts for electric utilities is "the loss of an asset's service value not restored by current maintenance." 18 C.F.R. § 101(12). In establishing standards for depreciation for accounting purposes, FERC wanted to ensure that electric utilities charge proper amounts of depreciation to expense in each financial reporting period for the purpose of allocating in a systematic and rational manner the

[21] The Federal Energy Regulatory Commission (FERC) is an agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC also administers accounting and financial reporting regulations of regulated companies – such as electric distribution companies (EDCs).

cost of utility property to the periods which the property is used in utility operations (over its estimated useful service life). 64 Fed. Register 42304-01 (August 4, 1999). Depreciation is an accounting term tied to the expenditure of the cost of an asset (such as a smart meter) over its period of use, or useful life. FERC does not interpret "depreciation" to mean deployment, nor does any other accounting or tax authority. "Deprecation" never means "deployment."

Both the Internal Revenue Code ("IRC") § 167(a) (26 U.S.C.A § 167) and Treasury Regulation §1.167(a)-1(a) mirror this and define depreciation as an allowance (or deduction) for the exhaustion, wear and tear, and obsolescence of property used in a trade or business or property held for the production of income. 26 C.F.R. Treas. Reg. §1.167(a)-1(a). requires that depreciation deductions are allocated over an asset's useful life.

These definitions show that the Commission's interpretation is at odds with the plain meaning of the term depreciation. Depreciation means wear and tear, exhaustion, or obsolescence are synonymous with the term depreciation.

Based on the definition of "depreciation" and "useful life" as used in legal and accounting contexts, the plain statutory language of § 2807(f)(2)(iii) must be interpreted using terms synonymous with depreciation to aid in interpretation:

> Electric distribution companies shall furnish smart meter technology as follows ... in accordance *with a wear and tear, exhaustion, or obsolescence schedule* not to exceed 15 years.

In other words, subparagraph 2807(f)(2)(iii) establishes the maximum service life of smart meters. This paragraph of the Act makes no reference to a mandatory roll-out of smart meters by all EDCs (regardless of their number of customers - which shall be addressed further below). It does not explicitly state, nor can it be inferred in any way, that there is a required system-wide deployment of smart meters on a schedule of no longer than 15 years, as stated in

the Commission's 2009 Implementation Order. Act 129 does not refer to replacing AMR meters or analog meters here; rather it plainly spells out that AMI (smart meters) service periods are not to exceed 15 years. Met-Ed's Smart Meter Deployment Plan (discussed, *infra*) confirms this.

The General Assembly's Prior Use of "Depreciation" to Specify the Useful Life of an Asset.

The General Assembly has consistently used the term "depreciation" in other enacted laws including in the Public Utility Code. A reading that would lead to a conflict between different statutes or between individual parts of a single statute violates rules of statutory construction. *Housing Authority of the County of Chester v. Pennsylvania State Civil Service Commission,* 556 Pa. 621, 730 A.2d 935, 946 (1999). The General Assembly is presumed to have intended to favor the public interest as against any private interest. *E.D.B. ex rel. D.B. v. Clair,* 987 A.2d 681, 684 (Pa. 2009) (citing *Vitac Corporation v. Workers' Compensation Appeal Board (Rozanc),* 578 Pa.574, 854 A.2d 481, 485 (2004) (citing 1 Pa.C.S. § 1922(5)). The General Assembly's prior uses of depreciation are consistent with defining the useful life of an asset, and do not involve mandatory deployment. Section 1703 of Title 66 states:

> §1703. Depreciation accounts; reports.
> (a) Accounts.--Every public utility shall carry on its books or records of account, proper and reasonable sums representing the annual depreciation on its property used or useful in the public service, which sums shall be based upon the average estimated life of each of the several units or classes of depreciable property.

66 Pa. C.S. § 1703(a) (emphasis added). Similarly, public utilities are required to file statements with the Commission that show annual depreciation, again without any reference to mandatory deployment.[22]

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[22]Title 66 Pa. C.S. §1703 (b) provides in part:

> (b) Statements.--Every public utility shall file with the commission, at such times and in such form as the commission may prescribe,

Clearly the General Assembly was familiar with the term "depreciation" when it made a policy decision for Act 129 to use "depreciation" to specify the "useful life" for depreciation purposes relative to smart meters.

Paragraph 2807(f)(2) in its entirety as written by the General Assembly means that the only way homeowners would be furnished their first smart meter was to request one and pay for its cost at time of such request, if the homeowner is living in existing construction. In new construction, smart meters "shall be furnished" or provided. Thereafter, the smart meter that was furnished must be replaced with a new smart meter over a period not to exceed 15 years.[23]

The Commission incorrectly interprets the statutory subparagraph (f)(2)(iii) as a requirement for system-wide smart meter deployment within 15 years with no exceptions. The Commission has substituted "deployment and installation schedule" for the statutory terms "depreciation schedule." Nowhere does any statute or other regulatory agency define or use the terms "deployment" or "installation" as synonymous with the term "depreciation."

The Commission's interpretation is not saved by the statute's use of "furnish." BLACK'S LAW DICTIONARY states: "Definition of "furnish": To supply; provide; provide for use." Section 2807(f)(2) of the Act requires EDC's to *furnish* smart meter technology under three conditions only. It does not require the EDCs to install or deploy smart meter technology everywhere in their territories with no exceptions. Thus, neither "furnish" nor "depreciation schedule" can be

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statements setting forth the details supporting its computation of annual depreciation, as recorded on the books or records of accounts of the public utility.

[23] It should be noted, there does not appear to be any prohibition from an EDC asking a customer if they would want to consent to the installation of a smart meter if a customer would not fall under 2807(f)(2)(i) or (ii). Instead, covered EDCs have been forcing smart meters on customers not falling under 2807(f)(2)(i) or (ii).

reasonably construed to mean "install" or "deploy," much less connote "mandatory deployment and installation."

Act 129's reference to the size of EDC's further supports the conclusion that Act 129 does not require mandatory deployment, but instead made concessions for smaller EDC's. Section 2807(f)(6) of Act 129 states that subsection (f) does not apply to EDCs with 100,000 or fewer customers. This does not mean that customers of all EDCs with 100,001 or more customers must accept a smart meter, rather it means that (f)(2)(i), (f)(2)(ii), and (f)(2)(iii) do not apply to EDCs with 100,000 or fewer customers. An EDC with 100,000 or fewer customers does not have to furnish a smart meter upon request from a customer and that a smart meter does not have to be furnished in new construction. It excuses smaller EDCs from the requirements, it does not mandate smart meters on customers of EDCs with 100,001 or more customers.

The Legislative History Reveals that the General Assembly Rejected A Mandatory Deployment Scheme In Act 129

The Pennsylvania House rejected an explicit reference to Additional clarity is afforded by reviewing language that the General Assembly removed during the legislative process. The General Assembly removed language from the third clauses of Section 2807(f)(2) in the final version of Act 129 which was passed into law that would have provided for a mandatory deployment. Printer's Numbers (PNs) 3218 and 3233 of House Bill 2200 (February 11 and 12, respectively, 2008)[24] both stated, "Electric distribution companies shall furnish smart meter technology to: ...(C) One hundred percent of its customers within ten years after the effective date of this paragraph." The *House Journal* records numerous dissenting comments about the mandatory nature of the deployment.

[24] See Attachment 1 for copies of PN Bills.

- House Journal, February 11, 2008, pages 386-403 [p. 390 Mr. Hutchinson; 390-391 Mr. Godshall; p. 392 Mr McCall; p.393 Rep. Smith and Mr. Saylor; p. 395 Mr. Benninghoff; p.397 Mr. Gabig]
- House Journal, February 12, 2008, pages 430-432 [p. 431: Mr. Hutchinson]

A third version of HB2200, PN 4429, which was not passed into law, would have required covered EDCs to replace fully depreciated existing meters that had exceeded their useful life with smart meters. However, this language in PN 4429 was changed, and is in sharp contrast to the language that was passed into law.[25]

The General Assembly rejected the versions of Act 129 that explicated mandatory smart meters for customers (PNs 3218 and 3233), and also rejected the version that suggested retiring meters from service and replacing existing (mostly analog) meters (House Bill 2200 PN 4429).[26]

It's erroneous for the Commission to interpret Subparagraph 2807(f)(2)(iii) of Act 129, as mandating smart meters for all customers or to conclude that subparagraph (f) referring at all to existing analog meters, because the General Assembly considered and rejected those versions. Instead, the General Assembly removed the mandate from Act 129. The Commission cannot rely on prior PNs of the Act that were not passed into law as the basis for the Implementation Order, to support rulings against every single smart meter formal complaint to date.

The legislative history from the Pennsylvania Senate explains that the legislature considered and rejected a mandate for Act 129. Senate Journal records of PN 4526.

[25] *The House Bill 2200 PN 4429 (September 23, 2008) stated, "Electric distribution companies shall furnish smart* meter technology as follows:... (III) in accordance with a schedule of replacement of full depreciation of existing meters. "

[26] It is also worth noting that there would be no way to logically think "depreciation" could be synonymous with "deployment" in the paragraph above from PN 4429. It simply makes no sense.

On October 8, 2008, the Senate recorded the following comments for PN 4526[27], pertinent to smart meters and concerns about customers. Discussion of PN 4526 in the Senate is recorded in the Senate Journal on October 8, 2008, pages 2626-2631.

Senator TOMLINSON stated:

> It [PN4526] also contains language in there that we will have smart meters. **It is not mandated,** but it allows for the deployment of smart meters through a depreciation process, through new home construction process, and through the depreciation of 15 years, and **for anyone who wants to purchase a smart meter which they feel will help them manage their electric load better.**

p. 2627 (emphasis added). Senator Boscola, also confirmed that Act 129 did not mandate smart meters: "**We also made sure that smart meters would not be mandated for every single ratepayer.**" Senator Boscola explained that avoiding a mandate was not only "a smarter approach," but that it would also "save electric customers hundreds of millions of dollars paying for something that will not provide a real benefit in their own households." October 8, 2008, p. 2629. Senator Fumo also confirms that Act 129 did not contain a mandate "In addition, **we did not mandate smart meters, but we made them optional.** We did say in new construction, where they really are practical, they will be put in" *Id.* (emphasis added).

The Commission's Own Use of the Word "Depreciation" In 2009 Contradicts its Current Interpretation

In 2009, the Commission used the terms "depreciation" and "useful life" consistent with Act 129 when discussing meters (including smart meters) and related those terms to the meter's cost over its useful life. The Implementation Order illustrates that the Commission recognizes that "depreciation" is, in fact, an accounting term that relates to an expenditure for exhaustion, wear and tear, and obsolescence allocated over an asset's useful life. Here, the Commission does

[27] The Senate Journal is available at: (https://www.legis.state.pa.us/WU01/LI/SJ/2008/0/Sj20081008.pdf#page=13)

not claim that depreciation means or has nothing to do with "mandatory deployment." Depreciation is a result of deployment of an asset: "As with all equipment, meters have a useful life. EDCs determine how much to invest in meter equipment based on its useful life and have an opportunity to depreciate that investment over the useful life of the meter. In addition, EDCs have an opportunity to recover the cost of the meter from ratepayers." Implementation Order at p. 12.

The Commission offers no explanation for its belief that "it was the intent of the General Assembly to require all covered EDCs to deploy smart meters systemwide when it included a requirement for smart meter deployment 'in accordance with a depreciation schedule not to exceed 15 years.'" Implementation Order at p. 14. In the years following the Implementation Order, as the EDCs have submitted and implemented smart meter deployment plans, the Commission instead interpreted that provision to mean that there can be no exception for any homeowner who objects to a smart meter on their property for any reason, including but not limited to adverse medical or health effects. The Commission simply has no basis for this position.

The Commission ascribes legislative intent which is entirely absent from actual wording and contradicts legislative discussion just prior to passage of the Act. The Implementation Order discusses recovery of costs of "deployment and installation" of smart meter technology, stating "these costs would include both capital and expense items relating to all plan elements, equipment and facilities, as well as an analysis of all administrative costs. Implementation Order, p. 29. Once again – the Commission uses the term "depreciation" correctly as an accounting term as a cost *resulting from* the deployment of smart meters. The Commission does not use "depreciation" as synonymous with the term "deployment."

The Commission's discussion of the recovery of costs in the paragraph above comes from Section 2807(f)(7) of Act 129 of 2008. Section 2807(f)(7) provides that part of the recoverable costs include annual depreciation and capital costs over the life of smart meter technology. In Section 2807(f)(7), depreciation is clearly an expense for the exhaustion, wear and tear, and obsolescence of a smart meter. In the Implementation Order, the Commission appears to understand the correct meaning and usage of the term "depreciation" discussed above. This use of depreciation in accordance with its plain meaning suggests that "depreciation" cannot be interpreted completely differently by the Commission solely for purposes of Section 2807(f)(2)(iii).

The Commission's recent decisions confirm its understanding of "depreciation" and contradict the Commission's current interpretation of Act 129. Moreover, the Commission recognized the importance of the 15-year limit of a useful life, rather than any mandatory nature. As recently as December 19, 2019, the Commission correlates useful life with cost of a technology – providing additional evidence that Commission understands the meaning of 129's Total Resource Cost ("TRC") Test for 2021[28] Docket No. M-2019-3006868 (Order, Dec. 19, 2019), page 21.

Met-Ed's Use of the Word Depreciation

Like the Commission, Met-Ed concedes that depreciation is inherently a tax and accounting term that stands for an expense tied to the wear and tear of an asset over its useful life. Met-Ed's Smart Meter Deployment Plan, Pa. P.U.C., Docket No. M-2013-2341990, at 52. Met-Ed's Smart Meter Deployment Plan states that it wants to "retire the meters out of stock,

[28] Act 129 discusses the TRC test being a standard test that is met if, over the effective life of each plan not to exceed 15 years, the net present value of the avoided monetary cost of supplying electricity is greater than the net present value of the monetary cost of energy efficiency conservation measures. Reference to the TRC is only made here to show the Commission's correlation of cost to the useful life of technology.

continue their existing *depreciation schedule* unaltered over their *remaining lives* as a regulatory asset, and continue *cost recovery* through base rates." Deployment Plan at 76. (emphasis added).

Met-Ed's Deployment Plan shows that Met-Ed uses the term depreciation in its plain accounting term meaning. Met-Ed proposes to continue depreciating existing meters using the existing meters' regular depreciation schedules over their remaining lives to recover the full costs of those meters through base rates if they were taken out of service prior to the end of their useful life after forced deployment of smart meters resulting from the Commission's erroneous interpretation of the Act. In other words, Met-Ed wants to continue charging customers for meters that are taken out of service until their full cost is recovered from the customer. Again, depreciation is an accounting term tied to the cost of an asset and allocation of that cost over the useful life of the asset.

The Commission and Met-Ed appear to understand what depreciation means, and that Act 129 § 2807(f)(2)(iii) imposes a maximum 15 year limit on the service life of smart meters; yet both state repeatedly that Act 129 §2807(f)(2)(iii) imposes a mandated deployment of smart meters to all customers of covered EDCs. In the absence of any statutory or legislative history to support the erroneous interpretation of a mandate, the Commission relies on this "depreciation schedule" to support their position. The Commission and Met-Ed thus are clearly capable of understanding and using the correct interpretation of the words "depreciation schedule", but instead misinterpret legislative intent and the Implementation Order to require deployment.

The Legislature Considers Opt-Out Legislative Proposals

Time and time again in the Commission's formal complaint administrative process, ALJ and the Commission have rendered decisions against smart meter complainants stating that the Act does not allow for opt outs. The Act does not explicitly address any legislative opt outs,

because it was solely an "opt in" statute. Opt outs are not necessary where the consumer has the option to opt in.[29] It is solely the Commission's misinterpretation of the legislative intent and meaning of the words "in accordance with a depreciation schedule not to exceed 15 years" that turned the Act into a mandatory, "no opt out" smart meter deployment law; otherwise, if the Commission had not attempt to change the meaning of the law by ignoring the plain meaning and the legislative intent, Act 129 would not need an opt out.

Act 129 does not require a small volume EDCs, i.e. one with 100,000 or fewer customers, to furnish smart meters to its customers. That is, if a customer is served by a small volume EDC, that EDC does not have to furnish a smart meter to a customer upon the customer's request for a smart meter or in new construction.

In response to the revisionist history of Act 129 through the Commission's interpretations, opt out bills began to be introduced in the legislature.[30] The Legislature introduced opt out proposals only in response to the Commission's flawed Implementation Order and the Commission's refusal to change its flawed interpretation of the Act, and not because of any wording or plain language of Act 129 itself. The first smart meter Opt-Out bill was proposed in 2012 by State Rep. Mike Reese (House Bills 2186 and 2188 most recently reintroduced as four bills - House Bills 310, 311, 312 and 313). The initial Bills were introduced approximately three years *after* the Implementation Order, and only one year after the Commission started to dismiss all smart meter formal complaints filed by Pennsylvania residents.

[29]The absence of a plainly stated opt-out provision does not preclude a utility customer from declining a meter based on various unsafe conditions (including medical implications and negative health effects) that could be caused or exacerbated by smart meter radiofrequency emissions in accordance with 66 Pa. C.S. § 1501.

[30] The Commission, Met-Ed and other utilities have either stated or insinuated that the existence of various smart meter opt-out bills proposed by the PA state legislature proves that the legislative intent of the Act was mandatory system-wide deployment; however, the timing belies that claim.

The first opt out bill was not introduced until years after the passing of the Act and the Commission's June 2009 Implementation Order, when the EDCs were starting their smart meter roll outs pursuant to the PUC's implementation orders, but not before then. Timing is key here and speaks volumes. *See*, for example, the long string of formal complaint cases that the PUC had dismissed on the pleadings starting in 2011, cited by PECO in *Kreider v PECO* PUC Docket No.: C-2015-2469655, *PECO Energy's Petition for Reconsideration of the Commission's September 3, 2015 Order*, citing *Gavin v. PECO,* Docket No. C-2012-2325258 (Final Order entered, Jan. 24, 2012).

Legislators clearly remarked as to the non-mandatory intent of PN 4526, and any subsequent effort by anyone to reach out to the PUC to remark about such intent fell on deaf ears as evidenced by complaint after complaint. As shown by a letter written by Commission counsel dated March 20, 2018 related to docket number C-2018-3000222, the Commission has taken the posture that the only way it would change its implementation order was if there was a ruling from a higher court or the Act was amended. At the same time, In the PA PUC's Public Meeting held April 15, 2010,[31] in discussing the deployment process of smart meters and related timeframes, it states that the PUC Administrative Law Judge (ALJ) "found that the *Implementation Order* is not a regulation and does not have the full force and effect of law. Instead, it acts as a policy to provide guidelines to EDCs regarding the Commission's expectations about smart meter plans." Docket No. M-2009-2123950, at 10.

The Commission does not need a ruling from a higher court or a legislative action to amend Act 129 for the Commission to permit opt outs. Because the Implementation Order does not have the full force and effect of law, it can be changed. The Commission itself states that its

[31] Docket No. M-2009-2123950

Implementation Order is a policy not having the full force and effect of law, yet it refuses to re-address its erroneous policy in the face of overwhelming evidence (well beyond a preponderance of the evidence) that it has misinterpreted the plain language of the Act, the legislative intent of the Act and the constitutionality of its Implementation Order. The Commission can change its erroneous policy and align its conclusions with the plain meaning of the statute; and does not need an appellate court or the PA state legislature to do so.

Act 129 § 2807(f)(2)(iii), as per the definition of depreciation based on the authorities discussed herein, as used repeatedly in the PA Public Utilities Code, and mirrored by the PUC's Implementation Order and Met-Ed's Smart Meter Deployment Plan, sets a cap on the service period of smart meters, dictating their service life not exceed 15 years. Even Met-Ed's deployment plan agrees. The final version of Section 2807 passed into law contains nothing about replacing electromechanical analog meters, nor anything about universal forced deployment of smart meters. Moreover, the legislative history clearly indicates that smart meter installations were not mandatory. The changes to the Bill wording through each Printer's Number show that the legislature considered and rejected efforts to make the installation of smart meters mandatory, culminating with the final version (PN 4526) passed into law.

The Commission cannot justify its mandate of universal forced deployment of smart meters in their Implementation Order of June 2009. Met-Ed has no statutory basis on which to force smart meters on all of their customers.

V. The Utility's Witnesses Chris Davis and Mark Israel Are Not Credible

Testimony of Dr. Israel is irrelevant as he concedes that he has no experience in the smart meters, other than as a witness for utility companies. Mark Israel claims that smart meters are safe. This is not true. First, the studies that Mark Israel cites in his testimony do not involve

smart meters, and are ten years old. Second Mark Israel never evaluated Ms. Hendin, nor has any direct knowledge about the proposed location of the smart meter at her residence, having never visited. Given the lack of relevance to Ms. Hendin's situation, Mark Israel's testimony should be given little weight.

His claim to being an "expert" in the field of radio frequencies and health is specious.

Mark Israel shows a startling lack of experience in the subject matter of this case—electromagnetic frequencies in general, and smart meters in particular. In response to the question, "What are your fields of expertise that are relevant to this proceeding?" *St. of Israel* at 5:4), he replied, "Medicine and medical research, including particularly radio frequency fields and health." *Id.* at 5:5-6.

Though there was not time to ask him more about this at the hearing, from his Curriculum Vitae, there is no evidence of this expertise. None of the courses he has taught were on this subject. Israel *CV* at 7-8. Even more important, of the 250 papers he has published, not one is on the subject of electromagnetic fields and their effect on health.

So, while Mark Israel has an impressive list of credentials in certain areas, he has no credentials at all in the particular field of radiofrequency fields and health, except for reading papers. He is claiming to be an expert by reading, even though many of the studies he cites are woefully out of date.

A. The Israel exhibits show he is out of touch with states' approach to smart meter opt outs

Israel cited several state public health authorities as having concluded that radio frequency fields from smart meters do not pose any health hazard—Maine Center for Disease Control; Vermont Department of Health; Arizona Department of Health; and North Carolina

Department of Health and Human Services." *St. of Israel* at 10:1-4. The quotations he cited are from 2010 to 2015.

Since these quotations were written, three of the states—Maine, Vermont, and North Carolina—have recognized that smart meters do pose a health hazard, and they ruled to offer smart meter opt outs state-wide. The fourth, Arizona, offers opt outs in parts of the state. In particular, in June 2018, the North Carolina Public Utilities Commission ruled to waive opt-out fees for customers who presented notarized doctors' letters that confirmed the customers had health issues related to smart meters. *In the Matter of Application of Duke Energy Carolinas, LLC for Approval of Advanced Metering Infrastructure Opt-Out Tariff*, North Carolina Utilities Commission, Docket No. 100, Sub 147 (Order) (June 22, 2018) See Attachment 1.

Further, in his Exhibit MI-2, Israel provided quotations from additional states against smart meters. But Massachusetts and Texas now offer smart meter opt outs state-wide, and Michigan allows opt outs in some parts of the state. So this exhibit holds no weight.

B. His exhibits demonstrate a lack of credibility.

Mark Israel's Exhibits MI-1, MI-3, and MI-4 offer quotations from various organizations. The international reach of these quotations would seem to imply Israel's broad familiarity with this issue. However, several of these groups of quotations are found as identical groups on general websites, where they are grouped and quoted in an identical manner, suggesting that Mark Israel does not have broad familiarity with these organizations and their work, and that any person could have created the same exhibit from these websites. (Exhibit 41).[32]

[32] Complainant had planned to ask him about all his exhibits in cross-examination but were not permitted to continue testimony.

C. Exhibit MI-4, criticisms of the BioInitiative Report, is the most glaring example.

A webpage called "EMF Explained 2.0: Review of the BioInitiative Report" is such a close match to Exhibit MI-4 that we believe it was Israel's source. The quotations in Exhibit MI-4 are exactly the same as on this webpage, with the exception of Germany, which Israel chose to omit. It is easy to insert each quotation into Google and then find the full statement, then select a few additional paragraphs from the full document, which is what Israel seems to have done. So, rather than Exhibit MI-4 showing the broad reach of Israel's knowledge of the BioInitiative Report, Exhibit MI-4 probably took its information from an elementary webpage. (Exhibit 41)[33]

Exhibit MI-4 took paragraphs directly from the Wikipedia page, and then followed the links to the full documents, and added several more paragraphs from that. Mark Israel used either of these online sources—EMF 2.0 or Wikipedia—for his Exhibit MI-4. This is hardly an indicator of professional expertise.

D. He chooses or modifies quotations to suit his position, without presenting the complexity of the truth.

Exhibit MI-1, "Public Health Authorities Reports on Radio Frequency Fields and Claimed Health Effects," cites nine (9) international sources. The first organization cited is the World Health Organization ("WHO"), which is quoted twice. Both quotes are from a page of the WHO website titled, "What are electromagnetic fields?" (Exhibit 25). The first quote: "Despite extensive research, to date there is no evidence to conclude that exposure to low level electromagnetic fields is harmful to human health," is taken from a list of "Key Points" on this

[33] http://www.emfexplained.info/?ID=25676) However, there is another possible source that could have been used, one that equally shows Israel's lack of expert knowledge: Wikipedia. Wikipedia, the free online encyclopedia, where anyone can post an entry from their point of view. Wikipediamo BioInitiative Report page was written by someone *critical of the Report. This Wikipedia page cites seven (7) organizations criticizing the BioInitiative Report.* Israeleport. Israelsomeone critical of the Rep

WHO webpage. However, other Key Points in the same section that say quite different things. For example: "A wide range of environmental influences causes biological effects.... ***Special research is needed to identify and measure health hazards.***" (Exhibit 25 (emphasis added)).

In fact, this WHO webpage opens with this statement: "If electromagnetic fields constitute a health hazard, there will be consequences in all industrialized countries. The public demands concrete answers to the ever more pressing question, whether everyday electromagnetic fields cause adverse health effects." *Id.* Mark Israel's second quote: "To date, no adverse health effects from low level, long-term exposure to radiofrequency or power frequency fields have been confirmed" contains no period at the end of the sentence because, in fact, the sentence does not end there. The whole sentence reads:

> To date, no adverse health effects from low level, long-term exposure to radiofrequency or power frequency fields have been confirmed, **but scientists are actively continuing to research this area**.

Id. (emphasis added). Mark Israel's decision to omit the importance of research in this area calls into question whether any of his report presents an honest picture of the state of medical science.

In sum, both these quotations from WHO show that Israel himself manipulated their meaning and intent. Dr. Israel himself cautioned against this when he said, referring to a letter from the American Academy of Environmental Medicine that Ms. Hendin submitted as an exhibit, "It only cites studies that support its position and ignores the great many other studies that do not. That reveals a lack of balanced consideration of the relevant scientific studies." *St. of Israel* at 14:7-9. Further, Dr. Israel repeated this same comment in reference to the European Academy of Environmental Medicine. *Id.* at 14:16-22.

Dr. Israel used WHO statements out of context in a way that drastically misrepresented the broader thrust of WHO's treatment of this complex subject.

E. Mark Israel's Did Not Conduct A Medical Evaluation of Ms. Hendin

When asked, "Did you conduct a medical examination of Ms. Hendin's health claims related to smart meters?" Israel answered, "Yes." *St. of Israel* at 6:2-4. But, in fact, he never met with Ms. Hendin, did not learn her medical history, and did not examine her. To call what he did a "medical examination" is completely misleading. Instead, he followed his 5-step method (*Id.* at 6:6), which was a literature review that solely involved reading materials. This is the approach of an academic, not a treating physician. It is certainly not a medical examination by any stretch of the imagination.

F. Mark Israel Incorrectly Claims that Smart Meters Are Safe

Mark Israel claims that smart meters are safe. This is not true. To back his claim, Israel cited three studies by Ogawa, Sommer, and Takahashi, stating that they "provide a reliable basis for determining whether radio frequency fields have the capability to cause or contribute to adverse health effects in animals," (*St. of Israel* at 7:16-18) and are "quite remarkable." *Id.* at 234:23-24; (Exhibit X3). These studies, however, are not relevant for several reasons.

Firstly, these studies are more than a decade old: the Ogawa and Sommer studies are from 2009, and the Takahashi study is from 2010. They no longer represent the current thinking on the safety of EMFs. Thousands of studies questioning the safety of radio frequency fields have been published since these were conducted.

Secondly, the studies were performed on small numbers of rats, not "hundreds, many hundreds of animals" as described by Israel. *Israel Cross Dec. 20, 2019 Transcript,* at 235:1-7. The study by Ogawa (*St. of Israel* at 8:2-6) contained four groups of 20 pregnant rats, totaling 80 rats and their fetuses, while the study by Takahashi involved just 36 rats and their fetuses. These

studies were also not extended over generations of rats; rather, they involved only pregnant rats and their fetuses.

Although Israel stated that these studies represented an "entire lifetime of exposure." (*Israel Cross, Dec. 20, 2019 Transcript,* at 235:1-7), the pregnant rats were actually only exposed to the cell phone radiation for 11 days in the Ogawa study. Since the life expectancy for a rat is one to three years, this short exposure does not represent an "entire lifetime of exposure." Similarly, exposure in the Takahashi study totaled only about four weeks, a far cry from an entire lifetime. This short duration of exposure is in sharp contrast to what Ms. Hendin would be subjected to if a smart meter were to be installed on her house. She would be exposed continually to EFMs for as long as she would remain in this residence. Furthermore, the rats were killed at gestational day 20 in the Ogawa study, and a few weeks later in the Takahashi study. The rats were not allowed to live long enough to determine if there were any long-term effects of the radiation.

The three studies looked at how radio frequency fields affected rat embryos. The studies found that the EMF exposure did not affect reproductive or embryotoxic parameters (weight of the placenta, sex of the fetus, or fetal weight, organs, or skeletons) or the fertility and development of the fetuses. They did not, however, look at the effects on human tissue, or on the heart, brain, or nervous system. In addition, they did not measure the type of symptoms suffered by Ms. Hendin due to exposure to a smart meter, such as joint pain, insomnia, heart palpitations, dizziness, cognitive dissonance, or gastrointestinal distress.

Mark Israel has extrapolated from the narrow findings of these studies on rat reproduction to claim that EMFs from smart meters do not affect humans. This is not a valid conclusion. Clearly, these studies are irrelevant to the current case.

G. Heart studies cited by Israel

Ms. Hendin expressed concern about the effect of smart meters on the heart *St. of Hendin of Israel* at 2:33-36. To back his claim that smart meters are safe for the heart, Israel cited four studies Tahvanainen, Nam (2006)[34], Nam (2009), and Choi. (Exhibit X5, X14), stating that they "examined whether radio frequency fields at the frequencies used by cell phones affect heart rates." *St. of Israel* at 15:12-13. These studies, however, are not relevant for several reasons. First, three of these studies are more than a decade old: the Tahvanainen study is from 2004, the Nam studies are from 2006 and 2009, and as such, they no longer represent current thinking on the safety of EMFs. Secondly, the studies were performed on small numbers of rats. No human subjects were used. (*Id.* at 15:10-20).

In addition, the duration of exposure to radio frequencies was short: Tahvanainen, 35 minutes; Nam 2006, 30 minutes; and Nam 2009, 30 minutes. Choi increased exposure to two sessions of 32 minutes each—a total of only one hour. (Exhibit X14).

The studies measured variables such as blood pressure and heart rate. Tahvanainen concluded that neither of these parameters were affected. *St. of Israel* at 15:18. The Nam and Choi studies similarly found no effects.

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[34] It is noteworthy that, in Nam 2006, another element, skin resistance, was examined, and it did, indeed change with RF exposure. Skin resistance is the opposition of the skin to the passage of an electric current. This shows that the study actually did show a response to exposure to radio frequencies, in a way that was related to the electrical nature of the body. The BioInitiative Report confirms this:

> There is very clear evidence that exposures to ELF and RF at levels associated with cell phone use, computers, video display terminals, televisions, and other sources can cause these skin reactions. Changes in skin sensitivity have been measured by skin biopsy, and the findings are remarkable.

(Exhibit X17, "Summary for the Public," p. 18; p. 33 of pdf).

None of these studies specifically addressed the type of RFs emitted by smart meters, as confirmed by Israel when he said, "There are no studies addressing the effect of radio frequency fields from smart meters on heart rate." *Id.* at 16:1-2. Duration of exposure, ranging from 30 minutes to one hour total, is not equivalent to exposure to smart meter radiation that would occur 24 hours a day, for months and years on end. To extrapolate from these limited studies and make any claims about the effects of smart meters on the heart is a huge and unscientific jump. Clearly, these studies also are irrelevant to the current case.

H. Studies on the Long-Term Effects of Exposure for RF Fields Suggest Effect on The Heart

Other studies show distinctly different results from those submitted by Israel. This may be because Dr. Israel did not include any studies that attempted to look at the *long-term effects* of exposure to radio frequency fields from cell phones. One study that did so, published in 2016 in the *Anatolian Journal of Cardiology*, looked at 148 individuals who had been using mobile phones for over 10 years, particularly targeting effects on cardiac electrical activity. The study concluded that "the duration of mobile phone use may affect the autonomic balance in healthy subjects. The electromagnetic field created by mobile phone use may induce HRV [heart rate variability] changes in the long term...[causing] detrimental changes in HRV." (HRV is the variance in time between the beats of the heart.) Thus, radio frequency fields from cell phones can directly affect the heart. (Exhibit X6).

Another study that directly contradicts the findings of the heart studies Israel is from 2015 and showed that exposure to wifi affects heart rhythm, blood pressure, and catecholamines (made by the adrenal glands as a reaction to stress), indicating that radiofrequency can act directly and/or indirectly on the cardiovascular system. (Exhibit X9). Further, a 2017 article, "Cardiovascular disease: Time to identify emerging environmental risk factors," cites several

studies showing the effects of radio frequency radiation on the heart. (Exhibit X7). A study published in 2018 was conducted on humans and found acute effects of cell phone emissions on the autonomic nervous system and the heart. (Exhibit X10).

I. IARC classification of RF as a 2B carcinogen.

Israel minimized the IARC classification of radio frequency radiation as a Group 2B carcinogen. He cited the definition of Group 2B substances as "possibly carcinogenic.'" *St. of Israel* at :14-16). But then he completely dismissed its significance. (*Id.* at 16:17-19). The five (5) IARC classification groups are:

1: carcinogenic to humans
2A: probably carcinogenic to humans
2B: possibly carcinogenic
3: not classifiable as to its carcinogenicity to humans
4: probably not carcinogenic to humans

(Exhibit X12). This places the 2B classification in the middle, showing the potential of RFs to cause cancer. But Israel tried to dismiss the 2B rating when he said the IARC "did not find that radio frequency fields...were either 'carcinogenic' or even 'probably carcinogenic.'" In so doing, he was claiming that the 2B classification has no significance. Israel thinks his opinion overrides the entire IARC, a global organization affiliated with the United Nations. It does not.

Israel claimed that the 2B classification is based on "limited evidence."*St. of Israel* at 16:15-19. He failed to give the meaning of this term. WHO says, "Limited evidence means that a positive association has been observed between exposure to the agent and cancer but that other explanations for the observations (technically termed chance, bias, or confounding) could not be ruled out." (Exhibit X12).

Israel quoted WHO as saying there are no adverse health effects from cell phones. *St. of Israel* at 17:4-7. Again, he both oversimplified WHO's full presentation and failed to

acknowledge that some of his quotations are out-of-date. The WHO statement that Israel cited from 2014 was based on the outmoded understanding that, "Tissue heating is the principal mechanism of interaction between radiofrequency energy and the human body...." Current research has conclusively shown that non-thermal effects cause many adverse health conditions.

Likewise, the 2014 WHO statement that Israel drew on, examined the possible link between RFs and cancer. WHO said, "Epidemiological research examining potential long-term risks from radiofrequency exposure has mostly looked for an association between brain tumours and mobile phone use.... There are some indications of an increased risk of glioma for those who reported the highest 10% of cumulative hours of cell phone use...." (Exhibit 27). Four years later, the NTP study found that RF radiation indeed causes glioma, or brain tumors. (Exhibit X16).

J. EMFs affect animals, contrary to Israel's claim.

After discussing the above-mentioned animal studies, Israel said, "In sum, these studies of fundamental biological functions that are very sensitive to any disruption do not show that radio frequency fields have the capability to cause or contribute to adverse health effects in animals." *St. of Israel* at 8:20; 9:1-3.

This statement is completely erroneous. As far back as 2007, the U.S Fish and Wildlife Service, an agency of the US federal government within the US Department of the Interior, held a "Congressional Staff Briefing on the Environmental and Human Health Effects of Radiofrequency (RF) Radiation," to target radiation impacts to birds and other pollinators. (Exhibit 24). In 2014, the U.S. Department of the Interior expressed concern for migratory birds, saying that a "significant issue associated with communication towers involves impacts from non-ionizing electromagnetic radiation emitted by them." (Exhibit 31).

Again counter to Israel's claim, many scientific studies have shown effects of radio frequency radiation on animals. To name a few: Masoumi (2018) showed that rats exposed to RFs developed symptoms related to diabetes. Tang (2015) showed that EMF radiation for 28 days significantly impaired spatial memory and damaged blood brain barrier permeability in rats. Cammaerts (2011) showed that the cell membranes of protozoa were damaged. Kumar (2011) demonstrated that radiation from cell phones influenced honey bees' behavior and physiology. Panagopoulos (2010) showed that the reproductive capacity of insects was affected. Balmori (2010) showed that eggs and tadpoles near cell phone towers exhibited a high mortality rate. Magras (1997) showed irreversible infertility in mice. Seventeen (17) other studies cited in Exhibit 39 show further effects of RFs on animals.

In addition, one other study is noteworthy—not about animals, but about other living things. In a long-term study (2006-2015), Waldmann-Selsam looked at unusual or unexplainable tree damage around mobile phone masts, revealing significant differences between the damaged side facing a phone mast and the opposite side, with the damage extending to the whole tree over time. (Exhibit 39). Such long-term RF radiation from a smart meter would certainly affect Ms. Hendin.

K. Scientific Studies Suggest that EMFs Affect Children

Israel claims RFs have no effect on health; however, studies show that children are especially susceptible to EMFs. As examples, Hocking (1996) found an association between increased childhood leukemia incidence and mortality and proximity to TV towers. Hocking (2003) found an association between residential proximity to the television towers and decreased survival among cases of childhood leukemia. Heinrich (2010) looked at 1,498 children and 1,524 adolescents, and found that exposure to RF fields was associated with overall behavioral

problems for adolescents. (See Exhibit 38 for additional studies). As a result of these studies, governments and organizations, such as the American Academy of Environmental Medicine, have taken action to protect children. (Exhibit 38).

L. Domestic and International Legislation Recognizes Health Effects of EMFs

The state of Oregon passed SB 283 on June 13, 2019, a bill relating to exposure to radiation in schools, and declaring an emergency. The bill passed unanimously in the Oregon state senate and with a 50-8 vote in the house. This bill requires the Oregon Health Authority to investigate the health effects of wireless radiation in schools, and the Oregon Department of Education to recommend practices and alternative technologies that would reduce students' exposure to radiation the health authority deems harmful. (Exhibit 37; *see also* Exhibit 38,(2015 France's national law to reduce exposures to wireless radiation electromagnetic fields, specifically for children, and, among other things, banning wifi in nursery schools)).

M. Respected Medical Societies Have Called For Caution

In 2012, the American Academy of Environmental Medicine sent a letter to the California PUC, stating there is mounting evidence that inescapable electromagnetic fields' exposure from smart meters places children at particular risk for altered brain development and for impaired learning and behavior. (Exhibits 6, 38).

In 2013, the American Academy of Pediatrics[35] sent a letter to the Federal Communications Commission (FCC) about their concern for children and the effects of wireless radiation from cell phones. "Children are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation." (Exhibit X13).

[35] The American Academy of Pediatrics has approximately 67,000 members from many countries.

The Presidential Cancer Panel, part of the National Institutes of Health, published a 240-page paper in 2010 on "Reducing Environmental Cancer Risk," which stated that children "are at special risk due to their smaller body mass and rapid physical development, both of which magnify their vulnerability to known carcinogens, including radiation." (Exhibit 38; see also, The 2017 Reykjavik Appeal on Wireless Technology in Schools (Iceland); The Russian National Committee on Non-Ionizing Radiation Protection (RNCNIRP), a World Health Organization International EMF Project member, which issued a decision predicting that mobile phones could possibly cause illnesses, especially in children (last updated 2012)).

The National Education Association (NEA), which represents public school teachers and other support personnel, faculty and staffers at colleges and universities, retired educators, and college students preparing to become teachers, is the largest professional interest group in the United States, with 3 million members. In its 2018-2019 Resolution C-39 Environmentally Safe Schools, it stated, "[A]ll educational facilities must have healthy indoor air quality, be smoke-free, be safe from environmental and chemical hazards, and be safe from hazardous electromagnetic fields." (Exhibit 38[36]).

N. The Integrity and Credibility of Mark Israel Has Been Questioned Before

Mark Israel admitted he was not familiar with the publication from Smith-Roe coming out of the NTP study. *Israel Cross, Dec. 20, 2020 Transcript*, at 238:21-24. Mark Israel's credibility has been questioned before in *Laura Sunstein Murphy v. PECO Energy Company:*

> Dr. Israel [has] limited knowledge and experience regarding the specific issues that are the focus of these proceedings.... Dr. Israel has never published any research on EE and has never done any research on the effects of EE. *Cross Examination of Dr. Mark Israel, December 9, 2016 Hearing Transcript*, at 1580:7-9; (JA001905).

[36] NEA Resolutions are available for download at http://www.nea.org/assets/docs/Resolutions_NEA_HB_2019.pdf and in Appendix.

> This, taken with his unfamiliarity with the NTP Report and the IARC classification as discussed *infra* at 71 demonstrate that Israel's knowledge and his understanding of the issues before the Commission are limited and that he is not a reliable source of scientific information about any of the issues before the Commission in these cases.... Dr. Israel's testimony was also troubling. He did not—and could not— take into consideration the results of the recent NTP study because he is not even aware of the results. *Cross Examination of Dr. Mark Israel, December 9, 2016 Hearing Transcript*, at 1601:20-25; (JA001926).... More troubling still was Dr. Israel's testimony about the IARC classification. IARC, which is part of WHO, clearly identifies RF exposure as a "possible cause" of cancer. *Id.* at 1629:23-1631:14; *(JA001954-001956).*
>
> In *Kreider*, Dr. Israel told the PUC judges that IARC gave RF exposure a "clean bill of health" and he sticks with that in the cases at hand. *Id.* at 1632:11-21; (JA001957). In *Kreider*, he told the PUC judges that the IARC classification means "essentially there's no evidence." *Id.* at 1633:2-6; (JA001958). The IARC defines "possible carcinogen" as "limited evidence of carcinogenicity in humans." *Id.* at 1636:20- 1637:10; (JA001961-001962). His view is that there is no evidence. *Id.*; (JA001961-001962). He has "no idea how IARC uses it." *Id.* at 1637:21-1638:7; (JA001962- 001963). This is pure sophistry. IARC essentially says it could go either way. Dr. Israel treats that as a clean bill of health because in the absence of evidence either way, he thinks there is no problem. He is confused. There is no evidence of safety...."

Laura Sunstein Murphy v. PECO Energy Company, Docket No. C-2015-2475726, September 25, 2017, pp. 68-71). Mark Israel's conclusions must be viewed in the light of the obvious industry bias.

O. Dr. Davis's statements about UHF are inaccurate and must be questioned

Dr. Davis rightly noted that UHF TV towers send radio frequency radiation to the vicinity of Ms. Hendin's home in Easton, PA, which he claimed would be greater than RF radiation emitted by a smart meter. *St. of Davis* at 15:1-6. In fact, the nearest tower is 8 miles away, and some of the towers included in Davis' survey are as far away as Philadelphia, Wilkes-

Barre, and towns near New York City. Yet he wants to compare this to a smart meter which would be 6 inches from the front door.

Davis admitted he had never actually been to the property (*Davis Cross, Dec. 19, 2019 Transcripts* at 189:15), and that topographic features could reduce UHF radiation. "And it is a fact that, if Ms. Hendin's home was built inside a ravine, she would have lower UHF TV exposure." *Id.* at 189:23-25. In fact, Ms. Hendin's home is on the south side of a hill, which is composed of Eastonite, a rock as hard as granite. The nearest TV tower, 8 miles away, is to the north. So the rocky hill shields the home from UHF waves. Also, the home is surrounded by big trees, some of them as high as 80 feet, and as large as two feet in diameter. It is known that large trees shield radio waves from TV transmitters.

P. The Credibility of Dr. Davis is Likewise in Question.

It has already been shown that Dr. Davis' assessments of smart meter radiation, Ms. Hendin's cell phone, and her home's exposure to UHF, were inaccurate.[37] Even the FCC, on which Davis relied, contend that it is "generally agreed" that "further research is needed" to determine whether "effects of smart meters constitute a human health hazard." RF Safety FAQ website, cited in *St. of Davis* at 12:20-22. Davis quoted only part of the FCC's statement about RF Safety FAQ, ignoring that it was "generally agreed" that "further research is needed." *Id.* at 12:20-22. Davis quoted the FCC stating "... [S]ince much of the research is not done on whole bodies (in vivo), there has been no determination that such effects constitute a human health hazard." *Id.* at 12:20-22, n. 2. He ended the quote there to suggest there's been "no determination;" however, the FCC's FAQ continues: "It is generally agreed that further research is needed to determine the generality of such effects and their possible relevance...to human

[37] Ms. Hendin's request for surrebuttal testimony was denied; and therefore, she was not permitted to introduce Dr. Tania Slawecki as a surrebuttal witness to testify on this subject.

health." The very entity that Met-Ed is relying on for safety standards also claims that further research is required to determine whether a human health hazard exists.

Dr. Davis freely admitted that he had never published a single paper on exposure from smart meters, nor did he cite one in his testimony: "I have not published specific papers on the exposure from Smart Meters...." *Davis Cross, Dec. 19, 2019 Transcript,* at 184:9-10. Dr. Davis, like Mark Israel, has testified for multiple utility companies dozens of times. *Id.* at 186:8; 184:13.

VI. The Proposed Location of the Smart Meter Is Unreasonable

In the event that the court finds that, despite evidence that the installation of a smart meter at Ms. Hendin's home will adversely affect her health, a smart meter is to be placed on Ms. Hendin's property, the meter should be installed away from Ms. Hendin's home in order to minimize health adversity.

Currently, the proposed location of the smart meter is only 6 inches from the only door in and out of Ms. Hendin's residence and workplace, less than 4 feet from the kitchen, 8 feet from the desk where she works much of the day, and less than 20 feet from where she sleeps. An ideal recommended distance from a smart meter would be 50 feet. (*St. of Hendin* at 7:158)

Met-Ed/FirstEnergy admits that proximity to a smart meter is important to health. Its "Smart Meter Radio Frequency Fact Sheet" states, "RF exposure depends partly on the proximity of the RF source to a person. Smart meters are usually located on the outside of your house in a metal box, away from your daily routine activity." (Exhibit 5). Clearly, in Ms. Hendin's situation, the smart meter would be dangerously close to her daily routine activity.

Met-Ed offered the possibility of relocating the meter away from her living and working spaces, and Ms. Hendin "was very open to the option." *Hendin Direct* at 52:16). She met with

employees of Met-Ed twice, but no way forward was found because of the topography of the land and Met-Ed's insurance policy regarding a relocated wire.

VII. Installation of a Smart Meter At Ms. Hendin's Residence Would Violate Due Process

Article 1, Section 11 of the Pennsylvania Constitution and the 14th Amendment of the United States Constitution, requires that "[i]ndividuals have a right to be free of state-sponsored invasion of a person' bodily integrity." *Phillips v. County of Allegheny*, 515 F.3d 224, 235 (3d Cir. 2008); *see also in re Cincinnati Radiation Litig.*, 874 F. Supp. 796, 810-811 (S.D. Ohio 1995) (The right to be free of state-sponsored invasion of a person's bodily integrity is protected by the Fourteenth Amendment guarantee of due process."). The Commission's tortured interpretation of Act 129, which requires then to deny Pennsylvania citizens constitutionally-protected rights, must fail. As such, Ms. Hendin cannot be forced to accept a smart meter at residence in violation of her due process rights to protect her bodily integrity.

VIII. The Commission's Interpretation of Act 129 and Application of the Standard of Proof Illegally Supplant The Treatment Recommendations From Ms. Hendin's Physician

Ms. Hendin's has been advised by her physician, Dr. Kracht, to avoid smart meters on her property. Ms. Hendin has the right to rely on her physician's opinion and recommended treatment. The Commission is not a medical provider, a health care facility, nor an institution of medical instruction. Neither the Commission nor Met-Ed have examined or treated Ms. Hendin. Rather, the Commission is charged only with the "general administrative power and authority to supervise and regulate all public utilities doing business within this Commonwealth." 66 Pa. C.S. § 501(b). Under the Commission's own regulations, the Commission is required to rely on the expertise of outside medical professionals with direct experience with individual customers. *See* 52 Pa. Code § 56.113 (permitting a written medical certification for validity of requests to

prevent termination of service). The Commission's conclusion in earlier smart meter proceedings that the statute requires the Commission to prohibit opt outs requires a tortured analysis of legislative intent, and imputes a harmful interpretation of Act 129 to the General Assembly. It is fiction that the Commission has no other option but to force individuals to accept smart meters in their homes ignores and directly contradict an individual's rights to make individual decisions regarding his or her own well-being, within the sanctity of their own residences.

In Ms. Hendin's proceeding, Met-Ed seeks to rely on expert testimony of Mark Israel who violates the Hippocratic oath by ignoring a diagnosed condition because is "idiopathic" and relies on a "medical evaluation" that never occurred.

Since the time he graduated from medical school in 1973, physician Mark Israel has been duty bound to operate under the Hippocratic oath[38], which includes the pledge to Do No Harm. His repeated collusion with utility companies in dozens of cases to force smart meters on individuals regardless of the individual's recommended course of treatment or medical condition, based on misrepresentations of the science and of himself, violates the Hippocratic Oath by causing these individuals to suffer harm. For example, Israel testified in the proceedings of Catherine Frompovich (*Frompovich v. PECO Energy Company*, C-2015-2474602 (Op. and Order May 3, 2018). Although Ms. Frompovich had no other wireless exposure in her house, her utility sought to place a smart meter outside her kitchen where she spent a great deal of time. Op. and Order at 22. The Commission dismissed her case, based in part on Mark Israel's testimony. Mark Israel does not deny that certain individuals, such as Ms. Hendin suffer symptoms [redacted]

[38] The Hippocratic Oath provides, *inter alia,* that "I will keep [the sick] from harm and injustice." K.H. ex rel H.S. v. Kumar, 122 A.3d 1080 (Pa. Super. 2015 (citing Bioethics, Johns Hopkins; and for all quotations, *see* Bioethics, Johns Hopkins Sheridan Libraries & University Museums, available at guides.library.jhu.edu/c.php?g=202502&p=1335752 (last reviewed June 26, 2015)).

[redacted]

IX. The Commission Violates Federal Law

The Commission commits an egregious civil rights violation under Section 504 of the Rehabilitation Act of 1973 and the Fair Housing Act Amendments, which prohibit discrimination by any entity receiving federal funds and housing discrimination on the basis of disabilities by completely disallowing smart meter opt outs, at least for the disabled. *See* 29 U.S.C. § 794(a); 42 U.S.C. § 3604(f)(2).

Appeals to an administrative adjudicative body are the means by which the record of a an action is fully developed and "[a] party's due process rights are protected . . . ." *See, e.g., Fiore v. Department of Environmental Protection*, 655 A.2d 1081 (Pa. Cmwlth. 1995) *modified*, 351 A.2d 606 (Pa. 1976)) (*citing Commonwealth v. Derry Township*, 314 A.2d 868 (Pa. Cmwlth. 1973), *modified*, 351 A.2d 606 (Pa. 1976)). The process includes pre-hearing discovery, an evidentiary hearing, and post-hearing submissions. 25 Pa. Code §§ 1021.101-1021.134.

PROPOSED CONCLUSIONS OF LAW

1. Pennsylvania law requires Met-Ed as a certificated electric utility to provide service and facilities that are safe, reasonable, adequate, and efficient to each customer.

2. Pennsylvania law requires Met-Ed to make accommodations and changes to its service and to any facilities, including meters, for the safety and convenience of its patrons and the public.

3. The Commission has the authority to require electric utilities to accommodate individual consumers who demonstrate that the installation of the smart meters at their homes will cause unsafe and unreasonable service.

4. Ms. Hendin has demonstrated that the installation of a smart meter at her residence will expose her to RF in contravention to her doctor's orders, and therefore will cause an unsafe condition that requires an accommodation and change in the meter facility.

5. The Commission's standard for determining whether an electric utility is providing service or facilities that are "reasonable" and or "safe" is lower than the standard for causation as found in toxic tort cases in courts of law. *Allen v. Pennsylvania Engineering Corp.*, 102 F.3d 194, 198 (5th Cir. 1996).

6. Ms. Hendin has met her burden to show that the installation of a smart meter, and the continued use of any digital (non-analog) meter at her residence is unsafe given her medical symptoms and her doctor's recommended course of treatment for those symptoms.

7. Ms. Hendin has also met her burden to show that installation of a smart meter and the continued use of any digital (non-analog) meter at her residence is unreasonable because of Met-Ed's single proposed installation location option.

8. Title 66 P.S. 1501 and Act 129 permit the Commission to order utilities to accommodate patrons requiring individual medical opt outs from the installation of smart meter facilities, upon the recommendation of treating physicians to limit exposure to RF-emitting devices such as smart meters at individual residences.

9. It is beyond the jurisdiction of the Commission to determine whether Ms. Hendin suffers from a disability and is classified as "disabled" under the Americans with Disabilities Act.

10. Ms. Hendin has demonstrated that her physician recommends that she avoid RF exposure.

11. Ms. Hendin has demonstrated that she has engaged in RF exposure avoidance and has alleviated symptoms.

12. The evidence presented by Ms. Hendin with respect to her personal history, symptoms and prior experience with a smart meter at her residence, present a situation appropriate for an opt-out accommodation to allow Ms. Hendin to continue her course of treatment in EMF avoidance.

13. Refusing to permit Ms. Hendin to opt out of the installation of a smart meter at her residence violates her due process rights.

14. The Commission cannot endorse the unreasonable service of Met-Ed at Ms. Hendin's residence by imposing an unsafe smart meter facility that forces Ms. Hendin to be exposed to RF, contrary to her physician's directions.

15. Ms. Hendin has shown by a preponderance of the evidence that Met-Ed is proposing unreasonable and unsafe service as described in Ms. Hendin's complaint, and that she was and will be again adversely affected by a smart meter, and that the Met-Ed's smart meter

facility at Ms. Hendin's residence will constitute an unsafe and unreasonable service in violation of 66 Pa. C.S. § 1501 in this case.

PROPOSED ORDER

For the reasons set forth above, Complainant Ms. Hendin respectfully requests that the Commission issue an order in the proceeding requiring:

1. That Defendant Met-Ed provide accommodation under Section 1501 to opt out of smart meter installation due to the unsafe nature of operation of the smart meter at Ms. Hendin's residence.

2. That Defendant Met-Ed shall provide electric service to Ms. Hendin without requiring a digital meter of any kind that emits radio frequency energy.

3. That Ms. Hendin is entitled to compensation, refund or other relief as may be determined in this proceeding.

Respectfully Submitted,

Dated: March 20, 2020

s/Joanna A. Waldron
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Attachment 1

Master List of Exhibits

Benner Tp. Water Authority v. Pa. DEP and Borough of Bellefonte, EHB Docket. No. 2016-042-M (Sept. 2017)

State Opt Out Information List

In the Matter of Application of Duke Energy Carolinas, LLC for Approval of Advanced Metering Infrastructure Opt-Out Tariff, North Carolina Utilities Commission, Docket No. 100, Sub 147 (Order) (June 22, 2018)

House Bill No. 2200, PN 3233

House Bill No. 2200, PN 3218

House Bill No. 2200, PN 4429

HENDIN - MASTER LIST OF CROSS EXHIBITS

X1 Letter from American Academy of Environmental Medicine dated January 19, 2012

X2 Letter from American Academy of Pediatrics dated December 12, 2012 to The Honorable Dennis Kucinich

X3 Takahashi, Satoru, et al.- Radiation Research Society re: *Lack of Adverse Effects of Whole-Body Exposure to a Mobile Telecommunication Electromagnetic Field on the Rat Fetus* Vol. 173 (2010).

X4 Letter from United States Department of the Interior to Mr. Eli Veenendaal dated February 7, 2014

X5 Tahvanainen, K, et al.- *Cellular phone use does not acutely affect blood pressure or heart rate of humans* Bioelectromagnetics, (Feb. 2004).

X6 Cardiol, Anatol- *The effects of the duration of mobile phone use on heart rate variability parameters in healthy subjects* The Anatolian Journal of Cardiology (Nov. 2016)

X7 Bandara, Priyanka & Weller, Steven- *Cardiovascular disease: Time to identify emerging environmental risk factors* Editorial European Journal of Preventive Cardiology Vol. 24 (2017)

X8 Dr. Neil Cherry-Cardiac Effects of Natural and Artificial EMR (December 16, 2002).

X9 Saili, Linda, et al-Human Services Department Canterbury, New Zealand- Environmental Toxicology and Pharmacology Vol. 40: *Effects of acute exposure to WIFI signals (2.45 GHz) on heart variability and blood pressure in Albinos rabbit* (2015)

X10 Beres, Szabolcs, et al-*Cellular Phone Irradiation of the Head Affects Heart Rate Variability Depending on Inspiration/Expiration Ratio.* Irving (2018)

X11 Lamech, Federica-*Self-Reporting of Symptom Development From Exposure to Radiofrequency Fields of Wireless Smart Meters in Victoria, Australia: A Case Series* Alternative Therapies Vol. 20 (2014)

X12 International Agency for Research on Cancer Monographs Questions and Answers

X13 Letter from American Academy of Pediatrics dated August 29, 2013 to U.S. Food and Drug Administration and Federal Communications Commission.

X14 Beom Choi, Soo, et al-*Effects of short-term radiation emitted by WCDMA mobile phones on teenagers and adults.* BMC Public Health Article (2014).

X15 Vornoli, Andrea, et al-*The Contribution of In Vivo Mammalian Studies to the Knowledge of Adverse Effects of Radiofrequency Radiation on Human Health.* International Journal of Environmental Research and Public Health (Sept. 2019)

X16 Smith-Roe, Stephanie, et al-Environmental and Molecular Mutagenesis *Evaluation of the Genotoxicity of Cell Phone Radiofrequency Radiation in Male and Female Rats and Mice Following Subchronic Exposure* (2019).

X17 2012 BioInitiative Report

X18 2017 BioInitiative Report

X19 2019 BioInitiative Report

PUBLIC VERSION- CONFIDENTIAL INFORMATION REDACTED

HENDIN –EXHIBITS (PRO SE)

1 Letter from Dr. William Kracht, physician, dated September 7, 2018 (St. of Hendin, Exhibit 1).

2 Brief biography showing that Dr. Kracht is, among other things, an active member of the American Academy of Environmental Medicine (St. of Kracht, WK-1)

3 Air Force study: Radiofrequency / Microwave Radiation Biological Effects and Safety Standards: A Review, June 1994

4 Army study: Bioeffects of Selected Nonlethal Weapons, Regraded Unclassified, December 6, 2006

5 Report from the top public health official in Santa Cruz County, California, confirming Smart Meters pose a health risk, January 13, 2012

6 Letter from the American Academy of Environmental Medicine (AAEM) to the California Public Utilities Commission, calling for a halt to wireless smart meters, January 19, 2012

7 Letter from physician David O. Carpenter, former founding dean of the University at Albany's School of Public Health, "Correcting the Gross Misinformation" about smart meters, June 11, 2012.

8 Politico: Smart grid powers up privacy worries, January 2, 2015

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9	9/16/19 Medical Record
10	2/13/12 Medical Record
11	2/28/12 Medical Record
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13	2/13/12 Special Study Order Requisition
14	Holter Monitor Report
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16	Abstract: 9/2017 by G. Heuser and SA Heuser
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23 IARC Monographs Chart

24. Manville, Albert-May 10, 2007-*U.S. Fish & Wildlife Service Concerns Over Potential Radiation Impacts of Cellular Communication Towers on Migratory Birds and Other Wildlife-Research Opportunities*

25. Electromagnetic fields (EMF) What are electromagnetic fields?

26. United States Government Accountability Office, July 2012-GAO Report to Congressional Requesters-*Telecommunications Exposure and Testing Requirements for Mobile Phones Should Be Reassessed*

27. October 8, 2014-*Electromagnetic fields and public health: mobile phones*

28. May 31, 2011-*IARC Classifies Radiofrequency Electromagnetic Fields as possibly carcinogenic to humans*

29. Radiofrequency Electromagnetic Fields: *evaluation of cancer hazards*

30. United States Fish and Wildlife Service, Development with Communication Towers with a Focus on Migratory Birds: Updates to Service Staff Involved with Tower Issues-A Webinar-February 20, 2014

31. United States Department of the Interior Letter to Eli Veenendaal (Feb. 7, 2014)

32. Smart Meter Radio Frequency Fact Sheet First Energy (Sept. 26, 2014)

33. PG&E Response to Administrative Law Judge's October 18, 2011 Ruling Directing it to file clarifying Radio Frequency Information (Nov. 1, 2011)

34. Report from the top public health official in Santa Cruz County, California, confirming Smart Meters pose a health risk, January 13, 2012 (see also Appendix Judith Hendin-witness statement at No. 18)

35. Fauteux, Andre, "Correcting the Gross Misinformation" about smart meters, June 11, 2012. This letter is endorsed by more than 50 international experts

36. Perera, David-Politico-*Smart Grid Powers Up Privacy Worries* (January 2, 2015)

37. Oregon Senate Bill 238

38. Children's Appendix

39. Animal Appendix

40. Resolutions Appendix

41. Welcome to the EMF Explained Series-*Review of the Bioinitiative Report* (August 31, 2007)

COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD

BENNER TOWNSHIP WATER AUTHORITY	:	
	:	
v.	:	**EHB Docket No. 2016-042-M**
	:	
COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION and BOROUGH OF BELLEFONTE	:	**Issued: September 19, 2017**

OPINION AND ORDER ON
APPELLANT'S MOTION FOR SUMMARY JUDGMENT

By: Judge Richard P. Mather, Sr.

Synopsis

The Board denies Appellant's Motion for Summary Judgment. Section 275.312 is not applicable to general permits issued pursuant to Chapter 271. In addition, we find that there are significant issues of material fact regarding whether the Department complied with 25 Pa. Code §§ 271.915(f), 271.902(g), and 271.913(h) and whether it acted arbitrarily in its approval of the Borough of Bellefonte's application to apply biosolids to land in Benner Township.

OPINION

Background

On April 1, 2016, Benner Township Water Authority ("Appellant") filed an appeal of the Department's March 2016 issuance of a permit to the Borough of Bellefonte that would allow Bellefonte to apply biosolids to land in Benner Township. Appellant's concern is that the biosolids and contaminants from the biosolids will migrate into Appellant's well recharge area and its supplying aquifer. This concern is primarily based on the alleged presence of fractured bedrock, the lack of overlying soil, and the land gradient.

In 2015, the Department contracted with SSM Group to prepare source water protection plans for small water systems whose annual budgets were below a specific amount. Two of the water systems, which were included in the proposal, belonged to Appellant. In 2016, a Draft Plan for Appellant's systems was created and funded through the Department's Small System Water Protection Program. Its costs were covered jointly by the United States Environmental Protection Agency and the Commonwealth of Pennsylvania. The Draft Plan has not yet been submitted by Appellant to the Department for review and approval. During this time period, the Department approved the Borough of Bellefonte's permit application to apply biosolids to land in Benner Township. The Appellant filed an appeal with the Board to challenge the Department's decision as being inconsistent with the Draft Plan.

On December 23, 2016, Appellant filed a Motion to Compel Discovery over allegations that the Department was preventing contact between Appellant and a Department employee. On January 10, 2017, the Board issued an Opinion and Order denying Appellant's request because informal meetings are not governed by discovery rules. The Board further denied Appellant's request that the Department employee in question be represented by separate counsel because this type of relief is unavailable under the Board's rules and was not appropriate here.

On July 11, 2017, Appellant filed a Motion for Summary Judgment. On August 10, 2017 the Department filed its Response to Benner Township Water Authority's Motion for Summary Judgment, and later that same day, the Permittee filed its Response. Appellant filed its Reply Brief on August 24, 2017. We address the Parties' arguments below.

Standard of Review

The Board is empowered to grant summary judgment in appropriate cases. 25 Pa. Code § 1021.94(a); *Center for Coalfield Justice v. DEP*, 2016 EHB 341, 343. The standard for

considering summary judgment motions is set forth at 25 Pa. Code § 1035.2, which the Board has incorporated into its own rules. 25 Pa. Code § 1021.94(a)(a). There are two ways to obtain summary judgment. First, summary judgment may be available if the record shows that there are *no genuine issues of any material fact as to a necessary element of the cause of action or defense* and the movant is entitled to prevail as a matter of law. 25 Pa. Code § 1035.2(1). Second, summary judgment may be available

> [i]f after the completion of discovery relevant to the motion, including the production of expert reports, an adverse party who will bear the burden of proof at trial has failed to produce evidence of facts essential to the cause of action or defense which in a jury trial would require the issues to be submitted to a jury.

25 Pa. Code § 1035.2(2). Under the first scenario, the record must show that the material facts are undisputed. Under the second scenario, the record must contain insufficient evidence of facts for the party bearing the burden of proof to make out a *prima facie* case. *See* Note to Pa.R.C.P. No. 1035.2.[1]

In this appeal, summary judgment is "proper where the pleadings, depositions, answers to interrogatories and admissions on file, together with affidavits, if any, show that there is no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law." *Global Eco-Logical Service, Inc. v. DEP*, 789 A.2d 789, 793 n.9 (Pa. Cmwlth. 2001). When deciding summary judgment motions, we view the record in the light most favorable to the nonmoving party, and we resolve all doubts as to the existence of a genuine issue of fact against the moving party. *Borough of Roaring Spring v. DEP*, 2004 EHB 889, 893. Summary judgment usually only makes sense when a limited set of material facts are truly undisputed and the appeal presents a clear question of law. *PQ Corporation v. DEP*, EHB Docket No. 2015-198-L, slip op.

[1] The Appellant has the burden of proof in this appeal, and therefore the Board will not need to consider the Appellant's motion under the second scenario.

at 4 (Opinion and Order, Nov. 17, 2016); *Friends of Lackawanna v. DEP and Keystone Sanitary Landfill, Inc., Permittee*, EHB Docket No. 2015-063-L, slip op. at 2 (Opinion and Order, Sept. 2, 2016); *Citizen Advocates United to Safeguard the Env't, Inc. ("CAUSE") v. DEP*, 2007 EHB 101, 106.

Discussion

In its Motion, the Appellant outlined four arguments in support of a grant of summary judgment: (1) The Department's approval of the Borough of Bellefonte's permit application to apply biosolids to land in Benner Township was incorrect because the Department ignored certain requirements of 25 Pa. Code § 275.312(2); (2) the Department's approval of the permit application was in violation of 25 Pa. Code §§ 271.915(f) and 271.902(g), regarding agronomic rate and the protection of water supply; (3) the Permittee failed to submit soil samples from all fields on which it intends to spread biosolids, as required by 25 Pa. Code 271.913(h); and (4) the Department acted arbitrarily by failing to properly review the permit application.

Whether the Department Failed to Apply Chapter 25, Subchapter D

Appellant's first argument centers on the requirement of 25 Pa. Code § 275.312(2) that "No person or municipality may apply sewage sludge to a site unless the site complies with the following: (2) The soils have a minimum depth from surface to bedrock of 20 inches." It is the Appellant's position that the Department should have adhered to Section 275.312(2) and refrained from granting approval. The Appellant bases its argument on the proposition that the Department must implement regulations as written, and in an analysis of the regulation that includes both its language and history.

Appellant relies on a series of cases that hold that the Department cannot modify permit terms by unofficial agreement, cannot implement a permit review standard of its own devising,

and cannot invent a rule that is contrary to its own regulations. Appellant's Motion for Summary Judgment ("Appellant's Motion") at 6-7. With this understanding, Appellant proceeds to make the argument that the Department has done what is tantamount to acting contrary to its regulations because 25 Pa. Code § 275.312(2) applies here and was ignored.

The crux of Appellant's argument is that although final revisions to Chapters 271 and 275 were finalized in 1997, those changes did not affect Section 275.312(2)'s applicability to permits issued thereafter. The Appellant argues that "no site criteria or operating requirements of Chapter 275, Subchapter D were revised or rescinded by the 1997 rulemaking," i.e., the requirement that sewage sludge may not be applied to a site unless the soils have a minimum depth of 20 inches remains applicable to general permits. *Id.* at 10. While the Appellant acknowledges language present in the preamble suggesting the Section's inapplicability, Appellant asserts that "when a regulation has not been amended or rescinded, a preamble cannot do so by implication." *Id.* at 11.

It is the Appellant's position that the Preamble's statement that "the remainder of Chapter 275, as amended by this rulemaking, will remain in effect for the limited purposes of regulating the operation and enforcement of individual solid waste permits issued under Chapter 275" is, in effect, not binding on the Board. *Id.* Further, the Appellant sees it as being the only statement in the record regarding any intent to limit Chapter 275's applicability and reminds the Board that the Department "cannot issue a statement of policy and treat it as a binding norm the moment it is issued." *Id.* The statement in the Preamble is, according to the Appellant, no more than an nonbinding statement of intent. *Id.*

Rather, the Appellant argues that the actual effect and intent of the rulemaking are identifiable without any consideration given to the Preamble. The Environmental Quality Board

("EQB") did nothing in its amendment that might limit it to existing individual permits, though it might have done so had it wished. *Id.* at 11. Appellant directs our attention to the revised Section 275.201(b), which [Appellant argues] states that Chapter 275 continues to apply to existing individual permits but says nothing to suggest that the provisions no longer apply to land application of biosolids under the new general permits. *Id.*

Again, Appellant asserts that if the EQB had meant to preclude the restrictions of Section 275, Subchapter D from applying to the application of biosolids under a general permit, it could have been explicit and included such a provision under the new Chapter 271, Subchapter J. *Id.* In the Appellant's view, the fact that the EQB did not do this or revise Chapter 275 Subchapter D to state that the requirements for agricultural use do not apply to those applying biosolids pursuant to a general permit issued under Chapter 271 suggests to the Appellant that Chapter 275 Subchapter D remains applicable regulation. *Id.* Further, Appellant argues that EQB "certainly understood the interaction of old and new regulations" – the EQB certainly would have made explicit any intent to render Chapter 275 Subchapter D inapplicable. *Id.* It is the Appellant's position that the site restrictions of Chapter 275 Subchapter D "remain 'on the books' and in effect." *Id.* at 12. The Department's belief that that the regulation does not apply "is not legally sufficient to rescind a properly promulgated regulation." *Id.*

Appellant's final argument here is that logic dictates Chapter 275, Subchapter D still applies. There has been no scientific change or discovery that would affect the reasonability or necessity of the 20-inch soil depth requirement and cause its adjustment. *Id.* Appellant refers to its expert, who has found that the criterion has a sound scientific basis and is consistent with other Department land disposal of sewage regulations. *Id.* It is Appellant's position that the new permitting procedure adopted in Chapter 271 made no change to the science of environmental

protection and therefore, absent any mention in the record, "there is no reason to presume that EQB (or DEP) concluded sometime during the 1997 rulemaking that the 20 inch soil criterion for all biosolids applications should be rescinded." *Id.* at 12-13.

Both the Permittee and the Department disagree with Appellant's reading of Chapter 275, Subchapter D and that it applied to the matter here. In its brief, Permittee again summarizes the histories of Chapter 275 and Chapter 271 and asserts that following the adoption of Subchatper 271, Subchapter J, the Department has issued general permits and regulated land application of biosolids pursuant to those general permits under Chapter 271, therefore rendering moot any need to continue applying Chapter 275. Permittee's Brief in Opposition to Appellant's Motion for Summary Judgment ("Permittee's Brief") at 9. The Permittee acknowledges that the only exception to this is the applicability of Chapter 275 to permits that had been originally issued under Chapter 275 and remained in effect at the time of the EQB's regulatory revisions. *Id.*

Permittee points out the language of Section 271.903(e), which explains that "[t]he interim guidelines for the use of sewage sludge for agricultural utilization or land reclamation will remain in effect for the limited purposes of providing guidance for persons operating under, and for the enforcement of, individual solid waste permits issued prior to May 27, 1997, under Chapter 275." *Id.* at 8-9. This regulatory language is supported by the Preamble, which confirmed that "there is no need to retain Chapter 275 other than to provide a permitting mechanism until Subchapter J becomes effective, and to enforce existing Chapter 275 permits until they expire." *Id.* at 9.

According to the Permittee, none of the cases upon which the Appellant relied stand for the notion that the Department is bound to enforce regulations that have been "rendered inapplicable and unnecessary by the adoption of new regulatory framework." *Id.* The Permittee

argues that the situation here is not one where the Department "invented" a new rule that is contrary to its regulations. *Id.* Nor is it a case of an agency-issued policy statement being treated as a binding norm. *Id.* Rather, what has occurred here is the establishment of a new regulatory structure that replaced an old one, rendering the original inapplicable to new permits issued under the new structure. *Id.* The Permittee asserts that were Chapter 275 to apply alongside Chapter 271, the result would be "two separate regulatory structures that would surely conflict." *Id.* at 10.

The Department's position largely mirrors that of the Permittee. The Department agrees that Chapter 275 is inapplicable to the matter here. Department's Brief in Support of Its Response Opposing Appellant's Motion for Summary Judgment ("Department's Response") at 5. The Department points out that Chapter 275 makes abundantly clear that it applies only to those permits that have been issued under it. *Id.* Specifically, Section 275.201(b) lays out the requirements for sewage sludge that is applied to land "under a permit issued under this chapter." *Id.* "This chapter" refers to Chapter 275. The permit at issue in this hearing was issued under the authority of Chapter 271 and, as such, is not bound to the requirements of Chapter 275. *Id.* at 6.

The Board agrees with the positions of the Permittee and the Department – Chapter 275, by its express terms, does not apply to general permits issued under Chapter 271. Regulatory language persuades us that Chapter 275 was not meant to continue to apply to new general permits following the 1997 amendments. We think the language of 25 Pa. Code §§ 275.201(a) and 275.201(b), discussed by the Department in its Response, is clear in demonstrating that only permits issued under Chapter 275 must comply with the requirements of Chapter 275. In pertinent part, the language of Section 275.201(b) – that is, Chapter 275, Subchapter C – reads:

> A person or municipality that land applies sewage sludge under a permit issued under this chapter shall comply with the following:

> (1) The requirements of the act, this subchapter and the additional operating requirements for the specific type of operation that are in Subchapter D, E or F (relating to additional requirements for agricultural utilization; additional requirements for land reclamation; and additional requirements for surface land disposal).

25 Pa. Code § 275.201(b)(1). The first sentence of the regulation clarifies that Chapter 275 applies only to those persons and municipalities with a permit issued under Chapter 275. This directive is neither vague nor does it suggest the inclusion of persons or municipalities who have been issued permits under other Chapters, e.g. Chapter 271. Section 275.201(b)(1) makes it still more apparent that the *requirements* of Chapter 275 are only requirements for those persons and municipalities with permits issued pursuant to Chapter 275.

Additionally, an examination of the language of Section 275.311 – that is, Chapter 275, Subchapter D – further supports the understanding that the requirements of Chapter 275 apply only to those with permits issued pursuant to Chapter 275. Section 275.311 confirms that the requirements of Subchapter C apply to any person or municipality that applies sewage sludge to land and simply directs that in addition to the requirements of Subchapter C, those persons or municipalities must comply with further requirements under Subchapter D. 25 Pa. Code § 275.311(a). Because Chapter 275, Subchapter C clarifies that Chapter 275 applies only to those who have a permit pursuant to Chapter 275, it follows from Subchapter D's language that Subchapter D also only applies to those with a permit issued under Chapter 275. This regulatory language would be sufficient for the Board to find in the Department and Permittee's favor, but further support can be found in the regulatory language of both Chapter 271 itself and in the Preamble to the 1997 Notice of Final Rulemaking ("NFRM").

Section 271.903(e) – Chapter 271, Subchapter J – explains that "[t]he interim guidelines for the use of sewage sludge for agricultural utilization or land reclamation will remain in effect

for the limited purposes of providing guidance for persons operating under, and for the enforcement of, individual solid waste permits issued prior to May 27, 1997, under Chapter 275 (relating to land application of sewage sludge) . . . ." 25 Pa. Code § 271.903(e). Between this language and the language of the discussed sections of Chapter 275 above, it is readily apparent that the Chapter 275 regulations were not meant to apply to persons or municipalities who are issued permits under Chapter 271. This intent is further supported and explained by the language of the Preamble to the NFRM.

The Preamble states that "the remainder of Chapter 275, as amended by this rulemaking, will remain in effect for the limited purposes of regulating the operation and enforcement of individual solid waste permits issued under Chapter 275." 27 Pa. Bulletin 521. Further, "there is no need to retain Chapter 275 other than to provide a permitting mechanism until Subchapter J becomes effective, and to enforce existing Chapter 275 permits until the expire." *Id.* To us, this seems like persuasive language regarding the intent of the 1997 amendments. The discussion in the Preamble is, contrary to the Appellant's position, fully supported by the regulatory language in Chapters 271 and 275 discussed above.

Both the Department and Permittee accurately point out that the Board has heard a similar argument being made in the context of a Petition for Supersedeas in one of Judge Labuskes's cases. In *Measley v DEP*, 2001 EHB 706, Judge Labuskes denied a Petition for Supersedeas to halt the application of biosolids to land. The petitioners in that case made arguments under both Chapters 271 and 275, having to do with setback requirements. The Department argued that Chapter 275 did not apply and Judge Labuskes ultimately agreed, finding that the EQB's Preamble was sufficiently persuasive as to convince him that the petitioners would likely not succeed on the merits of their claim that Chapter 275 controlled. *Id.*

at 710-11. We feel the same here: the EQB's preamble, when read in conjunction with the regulatory language, persuades us that Chapter 275 does not apply to permits issued pursuant to Chapter 271.

The Appellant is correct in its view that a statement in a preamble is not controlling law. The Board has said as much in earlier cases. *See, e.g., Nat'l Fuel Gas Midstream Corp. v. DEP*, 2015 EHB 909, 945 (Where Judge Beckman wrote, "We remain skeptical about importing concepts and discussion from regulatory preambles and giving them equal weight with the actual language of the properly promulgated regulations."); *UMCO Energy v. DEP*, 2006 EHB 489, 575 (Where the Board needed "far more than this preamble to depart from the letter of the law itself"); *but see Wheeling Pittsburgh Steel Corp v. DEP*, 2008 EHB 338, 365 (Where the Department's reliance on a preamble made a strong case for its argument regarding intent). Here, the 1997 Preamble is not our sole source of information regarding regulatory intent of Section 275.312(2) and its applicability to general permits issued under Chapter 271. We may rely on the regulatory language present in both Chapter 275 and Chapter 271. That regulatory language makes clear that Chapter 271, Subchapter J controls here, not Chapter 275, Subchapter D.

Whether the Department Violated Sections 271.915(f) and 271.902(g)

The Appellant's second argument in its Motion for Summary Judgment is that the Department violated 25 Pa. Code §§ 271.915(f) and 271.902(g) regarding agronomic rate and protection of water supply.

Calculation of Agronomic Rate

Appellant argues that the Department accepted inadequate data and an incomplete analysis with respect to the agronomic rate of the land to which the biosolids would be applied. Appellant's Motion at 13. The Appellant asserts that it is necessary for the agronomic rate

calculation to include a consideration of the site's soil characteristics: depth and permeability. *Id.* at 14. According to the Appellant, the application did not appear to take into consideration these necessary specifics. *Id.* at 14-15. For example, the Appellant notes that the worksheets used to compute the agronomic rate lack any place to indicate root depth for the field and crop under consideration. *Id.* at 15. Further, there is no place for the Permittee to offer a discussion of the basis for selecting a crop's specific nitrogen requirement. *Id.* These alleged omissions are particularly alarming to the Appellant because there is a huge variation in soil depth across the mapped fields. *Id.* at 16. Appellant's position is that the regulation requires calculating the agronomic rate using actual crop needs and protection from bypass of the root zone, but that the Department instead chose to go a simpler route and follow a "pick a generic value" method. *Id.*

Both the Permittee and Department dispute the Appellant's assertions regarding agronomic rate. Permittee acknowledges that the rates included are examples. Permittee's Brief at 11. Permittee agrees that the "agronomic loading rate is specific to the soils on the farm, the crops grown there, and the source of the biosolids. *Id.* However, Permittee argues that because of this, they *must* be examples because the agronomic rate is not "general" or "typical" or "static." *Id.* The agronomic rate must be determined on a case-by-case basis. *Id.* In other words, exact rates cannot be included in an application because they simply do not exist yet.

Extrapolating from this, the Permittee further argues that the Appellant is erroneously assuming that Permittee will automatically violate the agronomic rate limitations. *Id.* at 12. The Permittee can only include an anticipated application rate, which is subject to adjustment at the time of actual application in order to "avoid running afoul of regulatory limits." *Id.* at 11-12. Appellant submitted no evidence that the Permittee will apply biosolids at a rate exceeding the

agronomic rate and, in fact, biosolids have not yet been applied to the site – something which would allow Appellant to prove its assertion. *Id.* at 12.

Finally, the Permittee clarifies that in preparing its agronomic worksheet it was permitted to derive the total crop nitrogen requirement from soil analysis, historical data, or the Penn State Agronomy Guide. *Id.* All three sources "inherently include considerations of soil type and depth." *Id.* Therefore, according to the Permittee, the Appellant's argument that soil type and depth were not considered in the application is incorrect and "unfounded." *Id.*

The Department argues generally that the Appellant and Permittee have a fundamental disagreement with what should be included in an application: soil data, the interpretation of the soil data, the meaning of the agronomic rate calculations, and the requirements that the Permittee is required to meet before it may apply biosolids to the site in question. Department's Response at 9. The Department asserts that the general disagreements regarding the general permit requirements and their evaluation precludes the Board from granting the Appellant's Motion for Summary Judgment. We are inclined to agree.

The Board thinks that there are material issues of fact here. At a minimum, there are disagreements over what the agronomic rate calculations entail. The Appellant insists that the crop's nitrogen needs, soil mapping unit, and the depth of the root system must be considered. The Permittee says that the depth of the root system may be inferred from crop type and soil mapping unit and is therefore implicitly factored into the agronomic rate calculation. The Appellant takes issue with the fact that Permittee's calculations are for example scenarios and views this as evidence that the Permittee will not comply with the agronomic rate requirements. The Permittee counters that *because* agronomic rates are highly specific to site, situation, and crop, it is only able to include examples in its application, and highlights Appellant's lack of

evidence regarding the assertion that Permittee will violate the agronomic rate requirement when it begins to spread biosolids. We think a hearing is necessary to resolve the disagreement among the Parties and to make a determination on this issue.

Protection of Water Supply

The Appellant also argues that the Department failed to take measures to implement Section 271.902(g) and act to protect groundwater from a significant known risk of pollution. Appellant's Motion for Summary Judgment at 16. Section 271.902(g) provides, "[a] person may not apply sewage sludge in a way that will cause surface or groundwater pollution, . . . adversely affect private or public water supplies, or cause any public nuisance." 25 Pa. Code § 271.902(g). The Appellant states that "soil science and hydrology establish the undisputed fact that applying pollutants to thin rocky soils overlying highly fractured bedrock creates a high risk of groundwater pollution." Appellant's Motion for Summary Judgment at 16-17. According to the Appellant, the soil on the site in question is thin and rocky in some areas and overlies highly fractured bedrock. *Id.* at 25. There is concern that pollutants that make it past the shallow soil will be conveyed directly into the public water supply. *Id.* It is the Appellant's position that the Department ignored these risks when reviewing Permittee's application, despite being fulling apprised of their existence. In support of this, Appellant points to the Department reviewer's testimony that he was "aware of the concept of the need to protect groundwater" but nonetheless "did not consider the risk to the local water supply when approving the Notice." *Id.* Appellant states, "in spite of knowledge of the risky conditions of the Spicer Farm . . . DEP's reviewer completely ignored it and took no steps either to evaluate the risk or to determine if any special restrictions might be appropriate to ameliorate it." *Id.*

The Permittee counters that there is no evidence that biosolids will be applied at the Spicer Farm in a manner that will result in surface or groundwater contamination. Permittee's Brief at 13. The Permittee notes that while Appellant's experts "have opined about the *possibility* of such contamination," the Appellant is again speculating about future events. *Id.* Permittee also takes issue with Appellant's allegation that the Department failed to consider the risks. *Id.* It is the Permittee's view that the record demonstrates that the Department did in fact evaluate the relevant risks to the site. *Id.* Further, Chapter 271, Subchapter J regulations "contain an inherent risk assessment methodology that accounts for mitigating the prospect of such contamination." *Id.* The fact that the Department analyzed possible risks and determined that those risks were properly mitigated and addressed through management practices does not rise to the level of a violation of Section 271.902(g). As it did regarding the calculation of agronomic rates, the Department again thinks that there is a disagreement regarding whether there is a "significant risk of contamination" and that this disagreement translates into material issues of fact that preclude summary judgment from being granted. Department's Response at 11.

The Board agrees that there appear to be material issues of fact regarding the risk of contamination to surface and groundwater. The Appellant and Permittee disagree about the inevitability of contamination. The expert report submitted by the Appellant suggests somewhat more ambivalence than what was presented in Appellant's Motion. The expert report posits that:

> The conditions stated as necessary for contribution of waters from the Spicer Farm to the Grove Park well all appear to be met with regards to lands to the South of Route 550. Biosolids leachates that might enter inclined carbonate rocks north and northwest of Route 550 appear unlikely to be transported under non-pumping conditions or induced by pumping to the Grove Park well based on the limited information available for this complex geological area. However, farm and domestic wells located adjacent to these northern parcels would be at risk.

Appellant's Ex. D, p. 27. While the report notes that farm and domestic wells located adjacent to the northern parcels would be at risk, it also couches its assessment in noncommittal terms: conditions "appear to be met" and biosolids leachates that "might enter inclined carbonate rocks."

The Appellant and Permittee further disagree on whether the Department sufficiently considered the risks of contamination. The Appellant's position is that the Department blatantly ignored and was dismissive of known risks to water, that the Department reviewer insisted that bare compliance with the regulations was all that was necessary to ensure environmental protection. Appellant's Motion for Summary Judgment at 17. The Permittee argues that the Department did not dismiss the risk of water contamination and, in fact, considered it before determining that the risk was properly mitigated. The Board finds that these conflicting views on the facts give rise to a need for a hearing on the merits in order to make a determination regarding actual risk to surface and groundwater posed by the spread of biosolids on the site.

Whether the Permittee Failed to Submit Soil Samples From All Fields, As Required by Section 271.913(h)

The Appellant's third argument is that the Permittee did not comply with the regulations of Section 271.913(h) because it failed to submit soil samples from all of the fields outlined in its application. The relevant section of the regulation states,

> [P]rior to the first time a site is used for land application, the first person who prepares sewage sludge . . . shall obtain, at a minimum, one representative soil chemical analysis for each field on which sewage sludge is land applied.

25 Pa. Code § 271.913(h). The Permittee's application provides a list of fields and a map of the site which, all together, indicate a total of 15 fields within the proposed application area. Appellant's Motion for Summary Judgment at 18. According to the Appellant, there are fields 1-12, plus fields number 1A, 5A, and 8A. *Id.* The Permittee provided soil analyses only from fields

1-12 and failed to provide them for fields 1A, 5A, and 8A. Because of this, Appellant alleges that the Permittee's application was deficient and therefore should not have been approved. *Id.*

The Permittee argues that while it did not provide soil samples and analyses for fields 1A and 5A, it never intended (nor currently intends) to spread biosolids on those fields. Permittee's Brief at 14. Specifically, fields 1A and 5A have setbacks that make land application impractical. *Id.* The Permittee also points out that the three "additional" fields were all part of the original twelve and that a soil sample may represent up to 20 acres of land. This, the Permittee asserts, is why it did not submit a separate analysis for field 8A: the combined acreage for fields 8 and 8A is 16, therefore the soil sample from field 8 extends to field 8A. *Id.*

The Department again contends generally that these disagreements between the Appellant and Permittee represent material issues of fact and, again, the Board is inclined to agree. The Board reviews all appeals de novo, meaning it is allowed to consider information not originally considered (or known) by the Department at the time of its own review. *See Borough of St. Clair v. DEP*, 2014 EHB 76; *Natiello v. DEP*, 2008 EHB 640; *Smedley v. DEP*, 2001 EHB 131; *O'Reilly v. DEP*, 2001 EHB 19. Here, that means that we may consider Permittee's assertion that it does not intend to apply biosolids to fields 1A and 5A. The Appellant asserts that there are 15 fields. The Permittee agrees with the Appellant's assessment that it did not submit samples for fields 1A and 5A, but qualifies this by saying it never intended to spread biosolids on those fields and that, further, a sample may cover up to 20 acres. The Department says that there are 12 fields with three fields broken into adjoining sections and that it received a sufficient number of samples to satisfy its requirements. There is clear disagreement here over not only what should have been provided, but whether what was provided was sufficient. We find that this presents material issues of fact and must be resolved at a hearing on the merits.

Whether the Department Acted Arbitrarily by Not Properly Reviewing the Application

Appellant's fourth and final argument is that the Department acted arbitrarily by not properly reviewing the Permittee's application. The Appellant breaks this argument into two sub-arguments. First, the Appellant argues that the information included in the application was inadequate to properly characterize the site. Appellant's Motion for Summary Judgment at 18. Specifically, the Appellant points to data from test trenches that showed soil depth of less than a foot coupled with the Department's knowledge of both these results and the underlying limestone. *Id.* The Appellant believes that these test results should have prompted the Department to take further action by requesting more testing to determine which areas of the farm had an adequate soil depth to support the provided agronomic rate calculations. *Id.* The Department did not do this. Rather, the Department accepted the test results without further examination. *Id.* at 18-19. The Department reviewer also did not consult with a geologist regarding the highly fractured bedrock underlying the site. *Id.* at 19. This, according to the Appellant, is inadequate and evidence of a lack of responsible review. *Id.* at 20.

The Appellant's second sub-argument is that the Department did not comply with its duty to impose more stringent requirements when it was appropriate. *Id.* at 20. First, the Appellant contends that the Department may not "blindly rely" on regulations at the expense of the environment. *Id.* at 21; *citing Coolspring Twp. et. al. v. DER*, 1983 EHB 151. It is the Appellant's position that the Department has blindly relied on the information submitted to it by the Permittee, at the expense of the environment. *Id.* For support, Appellant points to statements from the Department reviewer who apparently stated that "nothing seems to be amiss technically" and that he believed minimal compliance with the regulations was sufficient. *Id.*

Next, the Appellant argues that in addition to not being permitted to "blindly rely" on regulations, the Department also may not stand by and do nothing in the face of significant risk:

> [T]he existence of an unacceptable risk must be assumed when there is evidence of exposure to harmful materials and there is not enough information to rule out the likelihood of harmful effect . . . this precautionary principle allows a regulatory authority to act where complete scientific inquiry is unavailable if the risk of not acting may lead to serious or irreversible consequences.

Id. at 22; *quoting Defense Personnel Support Center v. DEP et al.*, 1998 EHB 512, 531-32. According to the Appellant, the Department has not followed this principle. *Id.*

The Permittee disputes any allegation that the Department's review of the application was deficient or that the Department erred in the exercise of its discretion. Permittee's Brief at 15. The Permittee further responds that, in fact, the Department did consider the conditions of the site and that the Appellant mischaracterizes the statements of the Department reviewer. *Id.* The Department reviewer employed his expertise while reviewing the site and determined that the site was suitable for land application – even where soils were shallow. *Id.* The Permittee contends that there was never any need for the Department to employ a geologist because there is no requirement that a geologist be employed – the Department's failure to do so is not in violation of applicable regulations. *Id.* Upon the conclusion of its review, the Department concluded that the "risks to groundwater [were] being properly contained by compliance with the [applicable] regulations." *Id.* The Permittee disagrees that the Department engaged in "blind reliance" and asserts that the Department adhered to the requirements of the regulation.

The Board again agrees with the Department that there are disputed material issues of fact regarding the Department's review. One party asserts that the Department did no more than check boxes on a form without conducting any accompanying analysis or engaging in scrutiny of the plan or site. The other party argues that, in fact, the Department did consider the site and the

data provided about the site, analyzed that data, and formed a conclusion based on that data. There are clearly disputed issues of material facts. We think that a hearing on the merits will allow us to develop a full record to evaluate and resolve the Parties' disagreements.

Conclusion

In addition to determining that Chapter 275 does not apply to general permits issued pursuant to Chapter 271, we find that there are significant issues of material fact that require a hearing to determine whether the Department complied with 25 Pa. Code §§ 271.915(f), 271.902(g), and 271.913(h). Further, a hearing will clarify whether the Department acted arbitrarily in its review of Permittee's application. Though the Appellant has presented a great deal of information, we nonetheless find that, when viewed in a light most favorable to the nonmoving party, the Appellant does not meet the burden for summary judgment. Therefore, we deny the Motion.

COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD

BENNER TOWNSHIP WATER AUTHORITY	:	
	:	
v.	:	**EHB Docket No. 2016-042-M**
	:	
COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION and BOROUGH OF BELLEFONTE	:	

ORDER

AND NOW, this 19th of September, 2017, in consideration of Appellant's Motion for Summary Judgment, it is hereby ordered that the Motion is **denied.**

ENVIRONMENTAL HEARING BOARD

s/ Richard P. Mather, Sr.
RICHARD P. MATHER, SR.
Judge

DATED: September 19, 2017

c: **For DEP, General Law Division:**
Attention: Maria Tolentino
(*via electronic mail*)

For the Commonwealth of PA, DEP:
Dawn M. Herb, Esquire
(*via electronic filing system*)

For Appellant:
Randall G. Hurst, Esquire
(*via electronic filing system*)

For Permittee:
Jeffrey W. Stover, Esquire
Scott Wyland, Esquire
(*via electronic filing system*)

State Opt Out Information

Statewide Opt Outs:

1. Vermont

2. California Decision *Modifying Decision 07-04-043 And Adopting An Opt-Out Program for San Diego Gas & Electric Co.*, Public Utilities Commission of the State of California, Application 11-03-015 (April 19, 2012)

3. Maine -*Boxer-Cook, et al.*, State of Maine Public Utilities Commission, Docket No. 2010-0345 (May 19, 2011).

4. Maryland - In the Matter of Potomac Electric Power Co. and Delmarva Power and Light Co. Request for Deployment of Advanced Meter Infrastructure, Maryland P.S.C. Case No. 9206, Order 86200 (Fed. 26, 2014).

5. North Carolina, *In the Matter of Application of Duke Energy Carolinas, LLC for Approval of Advanced Metering Infrastructure Opt-Out Tariff*, North Carolina Utilities Commission, Docket No. 100, Sub 147, (Order) (June 22, 2018).

6. Ohio, *In the Matter of Application of Duke Energy Ohio, Inc. for Approval of an Advanced Meter Opt-Out Service Tariff*, Public Utilities Commission of Ohio, Case No. 14-1160-EK-UNC; 14-1161-EL-AAM (Op. and Order Apr. 27, 2016)

7. Texas Rulemaking Related to Advanced Metering Alternatives Project No. 41111, Public Utility Commission of Texas Order Adopting New § 25.133 and Amendment To § 25. 214 As Approved at the Aug. 9, 2013 Open Meeting (August 12, 2013).

8. Massachusetts

9. New Hampshire (customers have to opt *in*)

Another 31 states offer opt-out programs with various utilities:

1) Alabama
2) Arizona (Docket No. E-01345A-13-0069) (Dec. 18. 2014)
3) Colorado
4) Florida (Docket No. 130223E1 (Jan. 7, 2015)
5) Georgia (Docket No. 36989 (Dec. 23, 2013)
6) Hawaii (Docket No. 2017-0226) (Feb. 7, 2018)
7) Idaho
8) Illinois
9) Indiana
10) Iowa
11) Kentucky (Docket 2012-0428)
12) Louisiana

13) Michigan
14) Minnesota
15) Mississippi (Docket No. 2016-UA-216)
16) Missouri
17) Nevada (Docket No. 12-05003) (Feb. 6, 2013)
18) New Jersey
19) New Mexico
20) New York (NYPSC, Case 14-M-0196) (Oct. 20, 2017)
21) Oklahoma
22) Oregon
23) Rhode Island (R.I.P.U.C. No. 2130 (Feb. 1. 2013)
24) South Carolina
25) Tennessee
26) Utah
27) Virginia
28) Washington (Docket U-180117, Apr. 10 2018)
29) West Virginia
30) Wisconsin(Wisconsin P.S.C. 5-WI-101) (rev. Dec. 2008)
31) Wyoming

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1115
DOCKET NO. E-100, SUB 147
DOCKET NO. E-100, SUB 153

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1115 In the Matter of Application of Duke Energy Carolinas, LLC, for Approval of Advanced Metering Infrastructure Opt-Out Tariff DOCKET NO. E-100, SUB 147 In the Matter of 2016 Biennial Integrated Resource Plans and Related 2016 REPS Compliance Plans DOCKET NO. E-100, SUB 153 In the Matter of Commission Rules Related to Electric Metering	)	ORDER APPROVING MANUALLY READ METER RIDER WITH MODIFICATIONS AND REQUESTING METER-RELATED INFORMATION

BY THE COMMISSION: On July 29, 2016, Duke Energy Carolinas, LLC (DEC or the Company), filed an application for approval of charges to be paid by DEC customers who choose not to have DEC install Advanced Metering Infrastructure meters (AMI or smart meters) to measure their electric service. At that time, DEC stated that it had deployed smart meters to about 25% of its customers in North Carolina and South Carolina and was engaged in ongoing projects to install smart meters to serve more customers. DEC noted that some customers had expressed concerns about having a smart meter installed at their premises. DEC stated that it was filing its Manually Read Meter Rider (Rider MRM or Smart Meter Opt-Out Tariff) in an attempt to respond to those concerns. Under DEC's proposal, opt-out customers would receive a smart meter with its communications disabled, and DEC would read the meter manually by visiting the customers' premises. DEC proposed that, under its opt-out tariff, participating customers would be charged an initial set-up fee of $150, and a monthly fee of $11.75.

On August 11, 2016, the Commission issued an Order Requesting Comments and Additional Information Regarding Proposed Smart Meter Opt-Out Charges. That Order required DEC to provide verified responses to questions about DEC's proposed tariff, its

smart meter deployment plans, and the loss of meter functionality when time-of-use customers are served via a smart meter. That Order also established a schedule for the filing of reply comments.

On August 23, 2016, the North Carolina Sustainable Energy Association (NCSEA) filed a petition to intervene, which petition the Commission granted by order dated August 25, 2016.

August 11, 2016 Order – DEC's Response

On September 19, 2016, DEC filed public and confidential verified responses to the questions posed in the Commission's August 11, 2016 Order. On September 22, 2016, DEC filed a revised response correcting administrative errors in its September 19, 2016 submittal. In its response, DEC reiterated that the tariff charges it proposes are "cost-based and represent the incremental costs identified that should be assigned to participating customers...." In response to the question of whether DEC would consider spreading some or all of the costs of smart meter opt-outs among all residential customers, DEC stated:

> No, the costs to offer a smart meter opt-out should be assigned to those customers choosing to participate. By choosing to opt-out of a smart meter, many of the cost savings opportunities from smart meters are not recognized, and additional costs are incurred. All residential customers should not have to pay for the very small minority of customers choosing to opt-out.

The Commission asked DEC to provide a comparison of how DEC's proposed opt-out tariff charges compare to those that have been approved for use by utilities in other states. DEC provided a spreadsheet showing the opt-out charges of 33 utilities. They showed up-front charges ranging from $20 to $167, and monthly fees ranging from $5 to $45. The spreadsheet also indicated that the State of Vermont had passed legislation forbidding opt-out fees, while the State of Pennsylvania had passed legislation requiring the installation of smart meters and precluding opt outs altogether.

The Commission requested that DEC respond to the concerns expressed by some members of the public regarding the Company's smart meter installations. DEC stated that the primary concerns were with the health impacts of radio frequency (RF) emissions and the privacy aspects of the smart meter's ability to capture granular usage data. DEC stated that its metering hardware complies with all applicable Federal Communications Commission (FCC) rules and guidelines, and that "nearly every household device that is powered by electricity emits RF electromagnetic frequencies in some amount."

> Smart meters emit a fraction of the types of RF emissions that come from cellular phones, microwave ovens, and many other household devices in use today. The drive-by meters that have been installed for over a decade in DEC territory also transmit using radios on the same frequency with a similar powered radio as the smart meters.

In terms of consumer concerns with privacy, DEC stated:

> The Company abides by very strict standards of data privacy, and the only thing that has changed is the amount of data coming from the smart meters. DEC does not intend to force all customers onto time-of-use rates, nor does it intend to release any customer usage data without their specific written consent.
>
> ...
>
> In response to all of these concerns, DEC is offering the Manually Read Meter option [the proposed Smart Meter Opt-Out Tariff] whereby energy usage would not be communicated via RF, and the meter provided to the customer would be manually read by a meter reader visiting the premises.

The Commission required DEC to respond to concerns expressed by time-of-use customers who asserted that they had lost functionality or ease of access to meter data when DEC changed them to a smart meter. DEC responded that through the AMI deployment DEC had delivered the capability for customers to view all of the relevant usage data through an online customer web portal. DEC stated further that it planned to remove meter displays that are not used in determining the customer's bill "so as not to display conflicting information."

The Commission asked DEC how many customers the Company had allowed to opt out of smart meters, and DEC responded that it had not allowed any customers to opt out. Rather, it had "temporarily bypassed" 549 customers who had unresolved concerns with the meter deployment.

The Commission also inquired of DEC whether it would be feasible to place a smart meter opt-out customer on DEC's Equal Payment Plan (EPP) with an annual true up and have the meter read manually once or twice a year. DEC responded that this option would be problematic for a variety of reasons. DEC stated:

> [T]here would be no way for customers or DEC to identify if there are equipment malfunctions .... [T]he rate designed from some schedules have blocks and seasonal differentials, so it would be nearly impossible to ensure that the customer would be billed appropriately if the meter was only read every six months. ... Additionally, there would be implications for the delinquency process. ... Finally, the Company has attempted to offer self-reading options in the past that were unsuccessful. Customers would forget to submit readings, which would generate estimated bills and field work orders to read the meters.
>
> In summary, DEC would have to create an entirely new EPP to attempt to address the issues outlined above, which would easily surpass the proposed tariff costs in IT work for the Customer Billing System alone.

DEC concurred that it is feasible to relocate a customer's meter to a different location on their property and stated that the Company has offered this option to customers who are concerned about smart meters. In this case, the customer must hire an electrician to relocate the meter base. DEC places the smart meter on the relocated meter base, and the customer's electrician then attaches the wiring from the meter base to the premise. Similarly, DEC has a Remote Meter Reading and Usage Data Service tariff via which consumers can have their meter read remotely via a telephone line. This involves a monthly charge of $45 for a dedicated land-line. However, DEC stated that it is working to discontinue this tariff due to the declining inventory of land-line meters.

As required by the Commission, DEC provided copies of the communications materials that it gives to customers during its AMI deployment. DEC stated that once Rider MRM is approved by the Commission, DEC will contact all of the customers who were previously by-passed and inform them of the opt-out option. Going forward, DEC will inform customers who have not yet received smart meters of the manually-read meter option. DEC reiterated that it is transitioning to the smart meter as the standard meter across the Carolinas, and that for customers who are concerned about RF emissions, "the only way to adequately address these RF concerns is to provide customers with a non-communicating manually-read meter." DEC stated that the smart meter hardware it is deploying has a useful life of about 15 years.

Intervenors' Comments

On October 24, 2016, NCSEA filed comments in which it stated that it does not challenge DEC's proposed fees for tariff participants. NCSEA stated further that it is interested in AMI due to the energy efficiency options that it enables. NCSEA posed a variety of questions about DEC's potential obligation to provide customers with usage data from AMI meters, and concluded with the following statement:

> As the Commission considers the costs and benefits of AMI in this and other dockets, NCSEA respectfully requests that the Commission also consider whether its current Rules enable the full potential of the benefits that can be afforded by AMI.

The Public Staff also filed comments on October 24, 2016. The Public Staff stated that it supports the availability of an AMI opt-out policy and believes that it is appropriate for DEC to recover the incremental costs of implementing such a policy through a one-time enrollment fee and an ongoing monthly fee. The Public Staff stated that it generally agreed that DEC's proposed fees are cost-based and accurate, but that it would be appropriate to revisit those costs, as well as DEC's estimated opt-out participation rate of 0.1%, in DEC's next general rate case or within five years. The Public Staff also recommended that DEC be required to file quarterly reports of the number of customers who receive an AMI meter and the number who opt out.

The Public Staff recommended that DEC's proposed tariff be modified so that:

(1) An opt-out customer who starts service at a premise where the previous customer had also opted out would not have to incur the one-time setup fee;

(2) Opt-out customers can make payment arrangements, over time, for the tariff's one-time set up fee; and

(3) Customers who have had an AMI meter installed, but then were charged $50 to have it removed, should have that $50 credited toward the one-time set up fee.

The Public Staff stated that DEC's proposed tariff would only be available to those small general service customers who use fewer than 3,000 kilowatt-hours per month and have a maximum demand of less than 15 kilowatts. The Public Staff stated that it would be more appropriate to eliminate the energy and demand thresholds and limit the rider to customers who take service under a rate schedule that does not require a demand meter or differentiate energy charged between on- and off-peak periods.

The Commission had inquired as to whether the DEC Equal Payment Plan, self-reading options, or dedicated phone lines could address some of the concerns that consumers had raised with DEC's proposal. The Public Staff generally concurred with DEC that these options could be impractical and could result in additional costs. The Public Staff recommended that DEC update the metering portion of its website to provide information about the tariff and easy access to DEC staff who can address customer concerns with smart meters.

The Public Staff stated that it did not agree with DEC's proposed solution to the loss of functionality or ease of access to usage data that had been experienced by time-of-use (TOU) customers when they were transitioned to an AMI meter. The Public Staff recommended that the Commission require DEC to take steps to ensure that each installed AMI meter displays basic real-time information consistent with the customer's rate schedule.

The Public Staff noted that the question of cost recovery for DEC's AMI deployment had not yet been brought before the Commission in a general rate case, and that the Public Staff's comments in this tariff proceeding "are not necessarily reflective of what will be the Public Staff's position in a future proceeding when the issue of [whether] DEC's AMI deployment is reasonable, prudent, and cost-effective is ripe for adjudication."

The Public Staff stated that it supports a generic proceeding where the rules associated with metering and billing for electric service can be reviewed and revised, stating that current rules predate many of today's metering and billing technologies:

> The current rules do not reflect the current metering paradigm, nor do they adequately address the engineering and design standards that are used to build, test, and deploy electric meters.

Finally, the Public Staff recognized the health concerns raised by numerous consumers in this docket, as well as in Docket No. E-100, Sub 141. The Public Staff stated that it "believes that these types of concerns are more appropriately regulated through the Federal Communications Commission (FCC) .... DEC's metering hardware complies with all applicable FCC requirements and its RF emissions are a fraction of the types of RF that are emitted by many other household devices in use today."

> In addition, the Public Staff notes that the majority of the customers who have been bypassed have been served for over a decade with an AMR [automated meter reading] or "drive-by" meter, which uses RF transmission similar to that used by AMI meters. The Public Staff is not aware of complaints from DEC customers regarding concerns or health-related issues as a result of their AMR or drive-by meters.

Reply Comments

On November 28, 2016, DEC filed reply comments in which it responded to the Public Staff's concerns. DEC stated that it does not object to revisiting its proposed opt-out charges within five years or in a future rate case. DEC said it would prefer to include opt-out statistics in its annual Smart Grid Technology Plan filing, rather than filing separate quarterly reports as the Public Staff had suggested. As to the Public Staff's suggestion that an opt-out customer who starts service at a premise where the previous customer had also opted out should not have to incur the one-time setup fee, DEC disagreed and stated that this approach would cause DEC to incur additional costs (unless the new customer elected the opt-out tariff prior to the final billing of the previous customer). DEC stated that it does not object to working with customers on a case-by-case basis to set up payment arrangements for the Rider's one-time set-up fee. DEC agreed to provide updated information about smart meters on its website, including information about the Rider, once it is finalized.

As to the Public Staff's suggestion to limit application of Rider MRM to customers who are under a rate schedule that does not require a demand meter or differentiate energy charges between on- and off-peak periods, DEC stated that it does not object to this change, but that it would limit participation to a smaller group of customers.

For by-passed customers who were charged $50 to revert to an AMR meter, DEC disagreed with the Public Staff and stated that crediting that $50 fee toward the one-time setup fee under Rider MRM would result in a subsidy from other customers. Similarly,

DEC opposed the Public Staff's recommendation that DEC allow customers who were by-passed to continue to receive service using their current meter for the remainder of the meter's useful life. DEC stated that, "Continuing to offer an older meter technology for a few customers would unduly burden the Company with respect to having to maintain, test and continue to support unique meters for only a few customers."

DEC stated that for customers who were by-passed where the majority of meters in their area have already been exchanged with an AMI meter, the Company will require those customers to either receive a communicating AMI meter, or elect to participate in Rider MRM with a non-communicating meter, once the tariff is approved.

In terms of the loss of meter data, DEC clarified that this is "only an issue for customers on a TOU rate or other non-kilowatt-hour based rate schedule who choose to read their billing determinants from the meter instead of via the customer web portal." DEC agreed to investigate a comprehensive solution and report to the Public Staff by the end of April 2017. DEC stated further that the Company had identified a potential manual workaround, but that it might require impacted customers to change to a common billing cycle.

DEC stated that it does not object to a separate proceeding where the *Commission's rules for metering and billing electric service could be revised to* accommodate industry changes.

April 28, 2017 Order – DEC's Related Filings

On April 28, 2017, the Commission issued an Order Requiring Further Study and Additional Information in which it:

(1) Held in abeyance a decision on Rider MRM until DEC informed the Commission, as required by the Smart Grid Technology Plan Order it had issued on March 29, 2017, in Docket No. E-100, Sub 147, that DEC intended to move forward with the deployment of smart meters;

(2) Required DEC to work with the Public Staff to design three alternatives to Rider MRM and report back to the Commission by July 1, 2017;

(3) Required DEC to respond to additional questions by July 1, 2017; and

(4) Required DEC within 30 days to file a report detailing the real-time electric usage information that was available at the meter and thermostat to TOU customers using AMR meters compared to the real-time electric usage information that is available at the meter and thermostat to TOU customers using a smart meter.

On May 5, 2017, DEC filed Supplemental Information for its 2016 Smart Grid Technology Plan in Docket No. E-100, Sub 147. In that submittal, DEC stated that the

Company had completed its AMI deployment evaluation and had made the decision in late 2016 to begin a full-scale smart meter deployment in North Carolina. The Company stated that it had begun implementing that deployment in early 2017. DEC supplemented its 2016 Smart Grid Technology Plan consistent with those decisions.

On May 30, 2017, DEC filed the required information about real-time electric usage information that is available to TOU customers. In addition, DEC stated that when TOU customers initially received an AMI meter, they did not see holidays accurately reflected on the meter as being off-peak days, and the on-peak demand register was not re-set with each billing cycle. In addition, DEC stated that, for a subset of TOU customers, the rate indicator stopped flashing during on-peak periods. DEC stated that, due to concerns from TOU customers, the Company had taken steps to ensure that all billing determinants are updated at the beginning of each season. The Company also implemented a manual process to ensure that each TOU meter's on-peak demand register is reset following each billing cycle. DEC stated that it plans to automate this demand reset effort in late 2017.

On June 30, 2017, DEC filed the additional information required by the Commission's April 28, 2017 Order. Among other things, DEC filed information about the health impacts of the RF energy produced by smart meters. This included information from the Smart Grid Consumer Collaborative, which stated:

> In-depth review of the scientific literature by the World Health Organization (WHO) revealed that the small amount of radio frequency (RF) energy produced by smart meters is not harmful to human health.
>
> ...
>
> RF emitted by smart meters is well below the limits set by [the] Federal Communications Commission and it is below levels produced by other common household devices like cell phones, baby monitors, satellite TVs and microwaves. In fact, you would have to be exposed to the RF from a smart meter for 375 years to get a dose equivalent to that of one year of 15-minutes-per-day cell phone use.
>
> ...
>
> In fact, an Electric Power Research Institute (EPRI) analysis of 47,000 smart meters installed in southern California found that 99.5% of the meters were transmitting for approximately three minutes or less daily.

DEC also submitted an August 24, 2015 report entitled Health Impacts of Advanced Metering Systems (Smart Meters) by the N.C. Department of Health and Human Services,

Division of Public Health, Occupational and Environmental Epidemiology Branch (DHHS Report). That report concluded:

> There are few studies available on the health effects of RF exposures from smart meters. However, the potential health effects associated with RF exposures from cellphone use have been studied extensively. The [four-member review] team concluded the current Federal Communication Commission (FCC) guidelines protect the public from the thermal health effects related to RF exposure.... Non-thermal health concerns evaluated included cancer, reproductive effects, cellular effects, neurological behavioral effects, and electromagnetic sensitivity. There is insufficient evidence to link RF exposures to adverse health outcomes.

To support its findings, the DHHS Report included statements and citations from Lawrence Berkeley National Laboratory, the American Cancer Society, the Centers for Disease Control and Prevention, the FCC, the Food and Drug Administration, the International Agency for Research on Cancer Working Group, and the National Institute of Environmental Health Sciences. The DHHS Report included a 2013 National Cancer Institute list of ongoing research on the health impacts from RF, as well as a list of "study limitations," to explain why it is difficult for scientists to definitively address the question of biological impacts of RF exposure.

August 21, 2017 Order – DEC's and Public Staff's Related Filings

On August 21, 2017, the Commission issued an Order Requiring Smart Meter Plan Presentation By Duke Energy Carolinas, LLC, in Docket No. E-100, Sub 147. That Order required DEC to appear before the Commission and address specific questions about DEC's decision to deploy AMI meters. Also on August 21, 2017, the Commission issued an Order Requiring Additional Information in Docket No. E-7, Sub 1115 based on its review of the information DEC had filed on June 30, 2017.

On September 8, 2017, the Company filed the information required by the Commission's August 21, 2017 Order. On September 28, 2017, the Public Staff filed comments in response to the Company's September 8, 2017 submittal. In summary, the Public Staff stated that it believes that the Company's proposal to provide opt-out customers a smart meter, with its communication capabilities fully disabled, remains the "most practical and reasonable" means of addressing the concerns of those customers who wish to opt out of a smart meter.

On October 6, 2017, DEC submitted written responses to the Commission's questions in Docket No. E-100, Sub 147, and on October 10, 2017, DEC appeared before the Commission as requested.

November 20, 2017 Order – DEC's Related Filings

On November 20, 2017, the Commission issued an Order Requiring Additional Information in which it required DEC to provide verified responses to questions that were prompted by DEC's October 10, 2017 presentation. DEC filed those responses on December 15, 2017. As requested, DEC provided additional information about the "cellular direct connect meter" option that it is using in rural areas where it is not feasible or economical to install AMI using the RF mesh technology. DEC stated that when its AMI deployment is complete, an estimated 45,371 customers will be served via the cellular direct connect meter option. DEC filed confidential information confirming that these meters cost more than a standard AMI meter, and stated that "DEC is not proposing separate fees to charge customers served by a cellular direct connect meter due to the RF mesh not being available at a customer location."

On December 20, 2017, DEC filed a supplemental report regarding real-time electric usage information for AMR and smart meters in order to update the Commission as to the status of issues affecting TOU customers who had been given smart meters. DEC stated that it had completed and released into production new functionality to automatically reset the demand on these meters once a month. DEC stated that there remains another outstanding issue where the rate indicator light stops flashing on the meter display during on-peak periods. DEC stated that it had been working with the meter vendor, but that testing in the vendor's lab had not yet led to a technical fix. DEC stated that additional tests are planned for January of 2018 in order to confirm the root cause of the problem and develop a solution.

Customer Statements of Position on Proposed Rider MRM

The Commission received about 130 customer statements of position in Docket No. E-7, Sub 1115. Nine of the statements appeared to be from Duke Energy customers who reside in other states.

All but one of the commenters opposed DEC's proposed smart meter opt-out rider and/or DEC's smart meter deployment in its totality. The vast majority of commenters stated that it is not fair to charge a fee for opting out of a technology when that technology poses a threat to the customer's health, safety, and/or privacy. More than half of the commenters stated that AMI meters emit RF radiation that is dangerous to human health, and harmful to plants and animals as well. (Several expressed similar concerns with AMR meters.) About a third of the commenters cited scientific experts, and many provided articles, citations, and website links, ostensibly demonstrating the potential harm being caused by RF emissions. For example, many people stated that the World Health Organization has classified smart meters as a "class 2b carcinogen." About a dozen people stated that the FCC's safety standards are inadequate to address RF emission risks because the standards only address the thermal, not the biological, impacts of RF emissions. Given the increasing number of RF emission sources in our environment, they state that the FCC's standards are inadequate and obsolete. More than a dozen individuals, including a physician, stated that they have personally experienced debilitating health impacts from the

cumulative impact of RF emissions from technologies including wi-fi (wireless local area networking) systems, cell phones, and smart meters. They described a condition called electro-hypersensitivity, in which certain individuals experience a myriad of symptoms due to exposure to RF emissions. Commenters who said they suffer from this affliction described the steps they have taken to limit their exposure to RF emissions, including avoiding cell phones and wi-fi systems. A few went so far as to assert that RF emissions from smart meters contribute to violence and homicides. Many commenters stated that the Commission has a duty to protect the health of DEC's customers, and, thus, the Commission should deny DEC's request to charge customers who want to opt out of a smart meter.

The Commission received a statement from David Carpenter, MD, who is Director of the Institute for Health and the Environment at the University at Albany in Rensselaer, New York. The letter was co-signed by four other scientists and doctors, and was cited by many public commenters as providing proof that smart meters are a risk to human health. Among other things, Dr. Carpenter's letter stated:

> The majority of the scientific literature related to RFR [radiofrequency radiation] stems from cell phone studies.
>
> ...
>
> Smart meters and cell phones occupy similar frequency bands of the electromagnetic spectrum, meaning that cell phone research can apply to smart meter RFR.
>
> ...
>
> While the strongest evidence for hazards coming from RFR is for cancer, there is a growing body of evidence that some people develop a condition called electrohypersensitivity (EHS). These individuals respond to being in the presence of RFR with a variety of symptoms, including headache, fatigue, memory loss, ringing in the ears.... Some reports indicate that up to three percent of the population may develop these symptoms, and that exposure to smart meters is a trigger for development of EHS.

About a dozen people stated that DEC is not communicating the truth to its customers about health risks posed by smart meters. Several commenters were aware of the 2015 DHHS Report submitted by DEC and alleged that the report was biased, that it was prepared by people who lack the required expertise, and that its drafters were inappropriately influenced by DEC. Several commenters noted that in March of 2018, scientists reviewing a study by the National Toxicology Program (for the U.S. Food and Drug Administration) found that RF waves can be decisively linked to cancer in rats.

Many people referenced DEC's handling of coal ash as indicating that the Company cannot be trusted, stating that the Company is focused on saving money rather

than on protecting its customers. About a dozen people expressed concern that smart meters present a risk of fires, interfere with pacemakers, present national security risks, and have the potential to cause power outages. Some stated that smart meters are poorly designed, making them vulnerable to lightning strikes and likely to cause power quality problems for customers. Several people asserted that smart meters could not meet Underwriters Laboratories, Inc. (UL), standards, which necessitated the establishment of a special certification for smart meters.

Several commenters were aware that DEC had received federal grants to partially cover the cost of the Company's smart meter deployments. They stated that it was unfair that they should have to subsidize these meters multiple times, first via their taxes, second via their utility bills, and finally to have to pay the proposed opt-out fee to avoid having a smart meter installed at their home.

About a third of the commenters opposed smart meters because of privacy concerns. Some stated that, in their opinions, the meters constitute a form of trespass or surveillance that requires informed consent (which consent they refuse to grant). Several people expressed concern that smart meters would allow DEC to control their appliances, to monitor their behavior, and to sell their personal data. Several others opposed smart meters due to cyber security concerns. Some people expressed concern that smart meters have a much shorter useful life than analog meters, and that they contain batteries and modems that must be replaced. About a dozen stated a strong preference for analog meters, with a phone line for communication, as the only option that is accurate and safe. Several commenters mistakenly believe that DEC still uses analog meters, and they expressed a strong desire to retain their analog meter.

One commenter said that DEC is using its smart meter deployment as a partial explanation for its need to increase rates, but that DEC's rate request fails to mention the $1 billion in benefits the Company will receive. Several people stated that there is no proof that smart meters will save money for customers. Another noted that DEC charges all customers for its internet billing service, even though that service only benefits those customers who choose to participate. They asserted that the costs of opting out of a smart meter are excessive and should similarly be spread to all customers.

About a dozen commenters argued that the Energy Policy Act of 2005 does not require the installation of smart meters. Several individuals stated that DEC had installed smart meters at their homes without prior communication or permission, sometimes when the customer was not at home.

One commenter expressed concern that, due to his home's rural location, DEC might want to install a cellular direct connect meter at his home. He sought clarification as to whether that would still be a digital meter, which he opposed. One commenter opposed DEC's proposed opt-out solution, saying it would not be possible to know for sure that DEC had disabled the meter's communications.

One commenter asked that the Commission hold a public hearing on DEC's opt-out proposal, and also asked the Commission to consider the public testimony and comments about smart meters from Docket No. E-100, Sub 141 (the 2015 Integrated Resource Planning docket).

One DEC customer who is on a TOU rate wrote multiple times to express concerns with his smart meter installation. He described numerous problems that he was experiencing including inaccurate displays and false data.

Several customers stated that their electric bills had increased markedly since receiving a smart meter. One stated that he had researched the issue and confirmed that, "Smart Meters record the spikes in usage and result in readings that are higher than with the previously used analog meters." This customer stated that DEC would thus collect more revenues than is appropriate unless the Commission adjusts DEC's rates.

One customer opposed DEC's opt-out proposal because it would require a DEC employee or contractor to enter the customer's home in order to read the meter. The customer's meter is located indoors, and the customer is concerned about home security.

Several commenters cited a recent decision by the New Mexico Public Regulation Commission which denied a local utility's application to install smart meters, which order purportedly stated that the utility's smart meter deployment plan "does not provide a net public benefit."

One customer stated that he had had a positive experience with his DEC smart meter. He related that for many years he had believed that his power bills were too high. With the hourly usage data provided by his new meter, he was able to identify the cause and take action to reduce his electricity consumption.

Discussion and Conclusions

After careful consideration, the Commission finds good cause to approve DEC's Rider MRM with modifications, as discussed below. As a preliminary matter, the Commission notes that DEC sought to recover costs associated with its smart meter deployment in its most recent general rate case, Docket No. E-7, Sub 1146, and the questions of whether DEC's smart meter deployment is prudent and necessary for serving customers and whether DEC should be allowed to recover its smart meter deployment costs from customers have been addressed in that case. However, the Commission believes it has enough information without holding a public hearing, as some commenters requested, to decide the questions before it in Docket No. E-7, Sub 1115: Whether DEC customers should be able to opt out of having a smart meter installed, and if so, under what terms.

No participant in this proceeding, including DEC, has asserted that customers should be precluded from opting out of having a smart meter installed. Therefore, the Commission concludes that customers should be able to opt out.

DEC asserted, and the Public Staff agreed, that those customers who opt out should pay the incremental cost of that decision. DEC demonstrated that its proposed charges of a one-time fee of $150 followed by $11.75 per month were based on reasonable estimates of its actual incremental costs. However, the Commission is not convinced that DEC's proposal for recovering those costs would be fair to those consumers who maintain that they must avoid to the extent possible exposure to RF emissions due to impacts on their health. DEC and the Public Staff correctly stated that the FCC, not the Commission, is the appropriate regulatory body to address the health impacts of RF emissions. The Commission is aware that the FCC's exposure guidelines were last updated in 1996 and that the FCC has had an open docket on the question of biological impacts from exposure to those radio frequency waves that fall in the range of 300 Hz to 100 GHz since 2013.[1] DEC's smart meters operate within that range, at 900 MHz; thus, the Company's decision to deploy smart meters was made in the context of this uncertain regulatory environment.

While DEC's smart meter technology meets current FCC standards, the Commission believes it is inappropriate to require customers who maintain that they need to avoid exposure to RF emissions to the extent possible to protect their health to pay DEC's proposed smart meter opt-out charges. Therefore, the Commission will require DEC to amend its Rider MRM to remove the customer charges for those customers who provide the Company with a notarized statement from a medical physician licensed by the North Carolina Medical Board that the customer must avoid exposure to RF emissions to the extent possible to protect their health. Upon receipt of such statement, the Company shall waive both the one-time and the monthly fees under Rider MRM. The Commission further requires that such medical statements must be handled and processed by the Company in a secure and confidential manner to protect customer privacy.

As proposed, DEC's $150 one-time fee for initial set up includes costs for the meter exchange, route analysis, IT, and account and billing set up. The Public Staff reviewed DEC's cost estimate and found it to be reasonable. Nonetheless, the Commission believes it might be possible for this one-time charge to be reduced for customers located in areas where DEC has not yet begun its AMI deployment. DEC should explore the feasibility and cost of identifying opt-out customers early and providing them manually-read meters during the AMI deployment, and report back to the Commission as to whether the initial set-up fee could be reduced in those situations.

Regardless of whether it is possible to reduce the initial set-up fee, the Public Staff recommended, and DEC agreed, that the Company will work with customers on a case-by-case basis to establish payment arrangements for the initial set-up fee. The Commission will require DEC to modify its Rider MRM to explicitly state that such payment arrangements are available. For the reasons cited by DEC, however, the Commission will decline to adopt the other tariff modifications that the Public Staff proposed.

[1] See the FCC's website at https://www.fcc.gov/general/radio-frequency-safety-0 for more information.

Finally, as regards both the initial set-up fee and the ongoing monthly charges, DEC shall file an analysis of the appropriateness of those charges by June 1, 2022, or in its next general rate case, whichever occurs first.

DEC's proposal to use smart meters with their communications disabled for those customers who want to opt out of having a smart meter is a reasonable one. It appropriately balances DEC's need for efficiency with some customers' desires to avoid being served via a communicating meter. Some commenters expressed a desire to be served via an analog meter, but DEC is not required to offer any and every metering option that some customers might prefer.

Some commenters state that smart meters represent an invasion of their privacy, with some going so far as to assert that the technology would constitute surveillance. In order to address this concern, the Commission will require DEC to annually file in its Smart Grid Technology Plan filing a verified statement by an officer of the Company providing a comprehensive list of all the ways DEC is using customer-related smart meter data, and the procedures DEC uses to keep that data secure and to protect customer privacy. The Commission requests that the Public Staff audit and provide comments on the Company's submittal.

Some commenters expressed concerns that smart meters have caused fires, power outages, interference with devices such as pacemakers, and inaccurate bills. Others stated that smart meters pose cyber security risks. While these concerns appear to be anecdotal, the Commission will require DEC to include in its annual Smart Grid Technology Plan filing a report detailing any such occurrences involving their model(s) of smart meters, and how the occurrences were resolved. This report should include information about cyber incidents, at DEC or elsewhere, involving its model(s) of smart meters. As suggested by the Public Staff and agreed to by DEC, the Company should also include in its annual Smart Grid Technology Plan filing information about the number of customers who choose to opt out of having a smart meter, with separate data for those who opt out for health reasons and for those who opt out for any other reason.

As stated earlier, one DEC customer commented that his smart meter offered less functionality and accuracy than his previous meter in the context of his service on a TOU tariff. Based on submittals from the Company, it is the Commission's understanding that DEC has largely resolved these problems. Nonetheless, DEC is to report on the status of these efforts by August 1, 2018.

Because it would limit availability of the opt-out rider to a smaller group of customers, the Commission rejects the Public Staff's recommendation to restrict the opt-out rider to customers who take service under a rate schedule that does not require a demand meter or differentiate energy charged between on- and off-peak periods.

Several public commenters asserted that DEC had installed a smart meter without prior notification. DEC should investigate those specific situations and report back to the Commission as soon as practicable, but no later than August 1, 2018.

In its August 21, 2017 Order Initiating Rulemaking Proceeding in Docket No. E-100, Sub 153, the Commission stated that there is good reason to believe its rules for the location, testing facilities, average error calculations, and accuracy of electric meters are no longer adequate and meaningful, given the migration away from mechanical meters to digital meters. The Commission, therefore, initiated a proceeding to review and revise its rules. However, at the request of the Public Staff, the Commission issued an Order on October 24, 2017, suspending the procedural schedule and holding the rulemaking docket in abeyance. In order to move this important work ahead, the Commission will require DEC to research the following questions and submit verified responses to the Commission by September 1, 2018, in Docket No. E-100, Sub 153:

(1) For all States in which Duke Energy operates that have updated their meter accuracy and testing rules to accommodate AMI and/or AMR meters, provide copies of those regulations.

(2) What protocols or processes does DEC currently use, before and after installation, to assure the accuracy of its smart meters at the time of installation and over time?

(3) What protocols or processes have been recommended by the meter manufacturer in order to assure accuracy at the time of installation and over time?

(4) What portions of the Commission's current metering rules are no longer relevant or should otherwise be revised?

The Commission will review the information submitted by DEC and then establish a further procedural schedule in that docket to update its meter-related rules.

IT IS, THEREFORE, ORDERED as follows:

1. That DEC shall re-file its proposed Rider MRM consistent with this Order on or before July 23, 2018, along with a proposed plan and schedule for implementing the Rider;

2. That DEC shall update the smart meter portion of its website to include information about Rider MRM;

3. That DEC shall report on the status of efforts to address problems with its smart meters relative to TOU tariff implementation on or before August 1, 2018;

4. That DEC shall include in its annual Smart Grid Technology Plan filing details of smart meter malfunctions or problems, data on the number of customers on Rider MRM, and a verified statement about its smart meter data privacy procedures, as discussed in this Order;

5. That DEC shall investigate public comments in this docket that state that the Company installed a smart meter without prior notification to the resident. The Company shall report back to the Commission as soon as practicable, but no later than August 1, 2018;

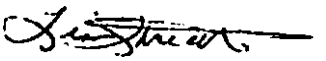
6. That DEC shall file in Docket No. E-100, Sub 153 the information in items (1)–(4) described herein on or before September 4, 2018; and

7. That DEC shall file an analysis of its Rider MRM charges on or before June 1, 2022, or in its next general rate case, whichever occurs first.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of June, 2018.

NORTH CAROLINA UTILITIES COMMISSION



Linnetta Threatt, Deputy Clerk

Commissioners Daniel G. Clodfelter and Charlotte A. Mitchell did not participate in this decision.

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THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2200 Session of 2008

INTRODUCED BY GEORGE, McCALL, BELFANTI, CALTAGIRONE, CONKLIN, DALEY, GOODMAN, HARHAI, HARKINS, KULA, MANDERINO, McGEEHAN, VITALI, J. WHITE, WALKO, SURRA, DeLUCA, DERMODY, GRUCELA, JOSEPHS, JAMES, GINGRICH, FREEMAN, K. SMITH, McILVAINE SMITH, YOUNGBLOOD AND FRANKEL, JANUARY 15, 2008

AS AMENDED ON THIRD CONSIDERATION, HOUSE OF REPRESENTATIVES, FEBRUARY 12, 2008

AN ACT

Amending Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes, providing for recovery of certain labor relations expenses; further providing for definitions; providing for adoption of energy efficiency and demand-side response; and further providing for duties of electric distribution companies.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Title 66 of the Pennsylvania Consolidated Statutes is amended by adding a section to read:

§ 1329. Recovery of certain labor relations expenses.

No public utility may charge its customers as a permissible operating expense for ratemaking purposes any portion of the direct or indirect cost of meetings, publications, consultants, attorneys or other professional services and expenses associated with the utility's efforts to dissuade the employees of the utility, or the employees of any affiliated interest of the utility as defined in section 2101 (relating to definition of

affiliated interest), from becoming or remaining a member in, or otherwise being represented by, any labor union.

Section 2. Section 2803 of Title 66 is amended by adding definitions to read:

§ 2803. Definitions.

The following words and phrases when used in this chapter shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Affiliated interest." As defined in section 2101 (relating to definition of affiliated interest).

* * *

"Cost effective." In relation to a program being evaluated, satisfaction of the total resource cost test.

* * *

"Demand-side response." Load management technologies, management practices or other strategies employed by retail customers that decrease peak electricity demand or shift demand from on-peak to off-peak periods provided that:

(1) The measure is installed on or after the effective date of this section at the service location of a retail customer.

(2) The measure reduces the peak demand or cost of energy by the retail customer.

(3) The costs of the acquisition or installation of the measure are directly incurred in whole or in part by the electric distribution company.

* * *

"Energy efficiency." Technologies, management practices or other strategies or measures employed by retail customers that reduce electricity consumption provided that:

(1) The measure is installed on or after the effective date of this definition at the service location of a retail customer.

(2) The measure reduces the consumption of energy by the retail customer.

(3) The costs of the acquisition or installation of the measure are directly incurred in whole or in part by the electric distribution company.

"Independent entity." An entity with no direct or indirect ownership, partnership or other affiliated interest with an electric distribution company.

"Peak demand." The highest electrical requirement occurring during a specified period. For an electric distribution company, the term means the sum of the metered consumption for all retail customers over that period.

"Real-time price." A rate that directly reflects the different cost of energy during each hour.

* * *

"Smart meter technology." Technology, including, but not limited to, metering technology and network communications technology capable of bidirectional communication and 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 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.

"Time-of-use rate." A rate that reflects the costs of serving customers during different time periods, including off-peak and on-peak periods, but not as frequently as each hour.

"Total resources cost test." A standard test that is met if, over the effective life of the program, the avoided supply-side monetary costs are greater than the monetary costs of the demand-side programs borne by both the electric distribution company and the participants.

* * *

Section 3. Title 66 is amended by adding a section to read:

§ 2806.1. Adoption of procedures encouraging energy efficiency and demand-side response.

(a) Program.--The commission shall develop a program to provide for the implementation of cost-effective programs that reduce energy demand and consumption within the service territories of all electric distribution companies throughout this Commonwealth. The program shall include, but is not limited to, the following:

(1) Selecting a program administrator to develop and oversee the delivery of energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth.

(2) Implementing the necessary administrative and

financial mechanisms that will enable the program administrator to develop and oversee the provision of energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth, including the levying of assessments in accordance with sections 510 (relating to assessment for regulatory expenses upon public utilities), 1307 (relating to sliding scale of rates; adjustments) and 1308 (relating to voluntary changes in rates). The commission shall not approve or implement and shall not assess or charge to customers the costs of energy efficiency or demand-response programs to the extent that the costs of such programs exceed 2% of the total annual revenues of the electric distribution company from all sources, including default service generation revenues as of January 1, 2007. This funding limit shall not include amounts provided for by the low-income usage reduction programs established under regulations at 52 Pa. Code Ch. 58 (relating to residential low income usage reduction programs).

(3) Implementing the necessary administrative and financial mechanisms that facilitate a system of third-party entities to deliver all or portions of the energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth, including the levying of assessments in accordance with sections 510, 1307 and 1308. The commission may order the electric distribution company to pay the third-party entity for services rendered in an electric distribution company's respective service territory pursuant to this section. The electric distribution company may be a

third-party entity.

(b) Selection of program administrator.--The commission shall implement the following procedures when selecting a program administrator:

(1) The commission shall prepare a request for proposals for a program administrator to provide for the development and delivery of the energy efficiency and demand-side response programs in the service territories of all electric distribution companies and shall make the request for proposals available for public comment.

(2) The commission shall, within 60 days of the completion of the public comment period, issue the final request for proposals.

(3) The commission shall, based on a competitive bid process, select an independent entity to serve as the energy efficiency and demand-side response program administrator.

(4) The commission shall include as a part of its agreement with the program administrator a system of performance parameters and a financial mechanism that provides incentives for exceeding established performance parameters and penalties for third parties not meeting established performance parameters.

(c) Powers and duties of program administrator.--The program administrator shall have powers and duties assigned by the commission. The powers and duties shall include, but not be limited to:

(1) Soliciting through a competitive procurement process within each electric distribution company service territory a program of providing energy efficiency and demand-side response programs to residential, commercial and industrial

customers utilizing third-party entities.

(2) Ensuring that each proposal includes, but is not limited to:

(i) A clear delineation of how the program will be conducted.

(ii) The types of specific program measures to be offered.

(iii) The cost and benefit of each program to be offered.

(iv) A process for monitoring and verifying results, data collection and management procedures, program evaluation processes and financial management strategies.

(3) In its review of each proposal received:

(i) Taking into account the unique circumstances of each electric distribution company's service territory.

(ii) Finding that each program is cost effective and that the portfolio of programs is designed to provide every affected customer class with the opportunity to participate and benefit economically.

(iii) Determining the cost-effectiveness of energy efficiency and demand-side response measures using the total resource cost test.

(4) Recommending to the commission those entities best suited to provide energy efficiency and demand-side response programs within the service territory of each electric distribution company.

(5) In the event no qualified proposals are received that meet the required plan goals in an electric distribution company service territory to conduct the program activities:

(i) Issuing a subsequent request for proposals with

plan goals that are reduced no more than necessary to obtain qualified proposals to provide program activities. The lowered plan goals for energy efficiency and demand-side response shall only be in effect for that year.

(ii) In subsequent years, utilizing the plan goals unless no qualified proposals are received to conduct the program activities that meet the plan goals, the program administrator shall issue a subsequent request for proposals in accordance with the procedures identified in this subparagraph.

(6) Executing agreements on behalf of the commission with the selected entity in each electric distribution company service territory to conduct the energy efficiency and demand-side response program. As part of these agreements the program administrator shall ensure that:

(i) The programs offered by the selected entity are provided equitably across all customer classes.

(ii) A clearly defined process for financial compensation for the entity delivering the program which is tied to defined goals for performance regarding program activities accomplished, energy cost savings on a per-customer basis and utility-wide basis and overall energy and peak demand reduction is established.

(iii) A system of incentives and penalties for performance of contractual activities above and below predetermined levels is in place.

(iv) There is a set contract term which may include an initial three-year term with renewal terms of varied length.

(7) Submitting reports to the commission at such times

and in such manner as the commission directs.

(d) Commission review of recommendations.--The commission shall review the recommendations made by the program administrator regarding those entities best suited to provide energy efficiency and demand-side response programs within the service territory of each electric distribution company. The commission shall approve or disapprove the recommendations made by the program administrator.

(1) The commission review of the recommendations of the program administrator shall be limited to ensuring that:

(i) There is no evidence of fraud or market abuse.

(ii) Any costs entered into are borne by the appropriate parties and that costs, including the costs of subsection ~~(c)(6)(iv)~~ (C)(6)(III) incentives, related to the provision of the contracted services are borne by the appropriate customer class. <—

(iii) There will be provided, in a cost-effective manner, a program that provides energy efficiency and demand-side response measures to all customer classes throughout the service territory of each electric distribution company.

(2) If the commission approves a third-party entity to conduct the program, the commission shall ensure the program administrator finalizes the agreement between the commission and the third-party entity selected to provide the program of energy efficiency and demand-side response.

(3) In the event the commission disapproves the recommendation of the program administrator, the commission shall provide a rationale for this decision and direct the program administrator on a course of action.

(e) Plan goals.--The program administrator shall ensure that each proposal submitted by a third-party entity to deliver a program of energy efficiency and demand-side response measures includes meeting the following energy saving goals:

(1) The following relate to energy efficiency goals:

(i) By May 31, 2011, total annual deliveries to retail customers of electric distribution companies shall be reduced by a minimum of 1%. This load reduction shall be measured against the expected load forecasted by the commission for June 1, 2010, through May 31, 2011, based on load for the period June 1, 2007, through May 31, 2008, with provision made for weather adjustments and extraordinary load that the electric distribution company must serve. The commission shall determine and make public the forecasts to be used for each electric distribution company no later than August 31, 2008. The program administrator shall ensure that a third-party entity meets the goals contained in this section through the implementation of a program of energy efficiency measures throughout the service territory of the electric distribution company.

(ii) By May 31, 2013, total annual deliveries to retail customers of electric distribution companies shall be reduced by a minimum of 2.5%. This load reduction shall be measured against the expected load forecasted by the commission for June 1, 2012, through May 31, 2013, based on load for the period June 1, 2007, through May 31, 2008, with provision made for weather adjustments and extraordinary load that the electric distribution company must serve. The commission shall determine and make

public the forecasts to be used for each electric distribution company no later than August 31, 2008. The program administrator shall ensure that a third-party entity meets the goals contained in this section through the implementation of a program of energy efficiency measures throughout the service territory of the electric distribution company.

(iii) By November 30, 2013, the program administrator shall evaluate the costs and benefits of these energy efficiency and conservation programs. If the benefits have been shown to exceed the costs, consistent with the total resource cost test, the program administrator, in consultation with the commission, shall set additional, incremental energy efficiency and conservation goals for the period ending May 31, 2018.

(iv) After May 31, 2018, the program administrator shall continue to evaluate the costs and benefits of efficiency and conservation measures and, in consultation with the commission, may adopt additional incremental load reduction standards for electric distribution companies.

(2) The following relate to demand-side response measures:

(i) Cost-effective demand-side response measures to reduce peak demand by a minimum of 4% in the 100 hours of highest demand with provision made for weather adjustments and extraordinary load that the electric distribution company must serve shall be implemented in each electric distribution company's service territory. This reduction will be measured against the electric

distribution company's peak demand in the 100 hours of greatest demand for June 1, 2007, through May 31, 2008. The reductions shall be accomplished by May 31, 2012.

(ii) By November 30, 2012, the program administrator shall compare the total costs of these demand-side response measures to the total savings in energy and capacity costs to retail customers of this Commonwealth. If the benefits have been shown to exceed the costs, consistent with the total resource cost test, the commission shall order additional peak demand reductions for the 100 hours of greatest demand or an alternative measure adopted by the commission. The reductions shall be measured from the electric distribution company's peak demand for the period from June 1, 2011, through May 31, 2012. The mandated reductions shall be accomplished no later than May 31, 2017.

(iii) After May 31, 2017, the program administrator shall continue to evaluate the costs and benefits of demand-side response measures and may, in consultation with the commission, adopt additional incremental peak load reduction standards.

(f) Measurements and verification.--The commission shall establish standards by which the program administrator submits to the commission an annual report, which includes that information relating to the actions and results of the energy efficiency and demand-side response programs undertaken within each electric distribution service territory by each third-party entity.

(1) The report shall include, but not be limited to:

(i) Documentation of program expenditures.

(ii) Measurement and verification of savings resulting from programs.

(iii) Evaluation of the cost-effectiveness of expenditures.

(iv) Any other information the commission may require pursuant to its rulemaking authority.

(2) The program administrator, upon consultation with the commission, shall direct a third-party entity to modify or terminate a particular energy efficiency or a demand-side response program if, after an adequate period for implementation of the program, the commission determines the program is not sufficiently meeting its goals and purposes.

(3) In the event an energy efficiency or demand-side response program is terminated, the program administrator shall require the third-party entity to submit a revised program describing the actions to be undertaken to either offer a substitute program or increase the availability of existing programs to make up for the effect of the terminated program on its overall program goals.

(g) Responsibilities of electric distribution companies.--Each electric distribution company that does not seek to be a third-party entity shall:

(1) Cooperate with the program administrator as needed in its efforts to competitively procure the services of a third-party entity to provide an energy efficiency and demand-side response program within the service territory of the electric distribution company.

(2) Provide information necessary to effectively facilitate the work of the selected third-party entity in conducting the energy efficiency and demand-side response

program.

(3) Provide assistance as may be requested by the program administrator in reviewing proposals from third-party entities seeking to provide energy efficiency and demand-side response programs within their service territories.

(4) Provide assistance as may be requested by the program administrator to facilitate the successful execution of the contract agreement with the third-party entities to provide an energy efficiency and demand-side response program within their service territories.

(h) Recovery of administrative and program costs.--An electric distribution company may fully recover all administrative costs, including, but not limited to, costs incurred under subsections (a)(3) and (g)(1), (2), (3) and (4), that the commission determines are prudently incurred and reasonable in amount pursuant to implementing a program to deliver cost-effective energy efficiency and demand-side response activities through a third-party entity. Program and administrative costs shall be recovered on a full and current basis by the electric distribution company from customers through a reconcilable automatic adjustment clause pursuant to section 1307. Energy efficiency and demand-side resource programs shall be deemed to be a new service offered for the first time under section 2804(4)(vi) (relating to standards for restructuring of electric industry).

(i) Reporting.--The commission shall submit an annual report to the General Assembly describing the results of the programs implemented by each of the electric distribution companies, including, but not limited to:

(1) The costs, benefits and reductions in energy costs.

(2) Energy use by customer class within this Commonwealth.

(3) Reductions in overall peak demand and projections toward complying with the overall target reduction goals of this section.

(j) Definitions.--For purposes of this section, the term "electric distribution company" shall mean a public utility providing facilities for the jurisdictional transmission and distribution of electricity to 100,000 or more retail customers in this Commonwealth.

Section 4. Section 2807(e) of Title 66 is amended by adding a paragraph to read:

§ 2807. Duties of electric distribution companies.

* * *

(e) Obligation to serve.--* * *

(6) (i) 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 and make the plan available for public comment for a minimum of 30 days. The plan shall describe the smart meter technologies the electric distribution company proposes to install, how the smart meter technology meets the requirements of this paragraph and how the smart meter technology shall be installed according to this paragraph. In addition, the plan shall ensure that all smart meter technology installation and maintenance work shall be performed by adequately trained and qualified personnel and that, to the extent practical, such work shall be offered initially to employees of the electric

distribution company.

(ii) Electric distribution companies shall furnish smart meter technology to:

(A) Customers responsible for 40% of the distribution company's annual peak demand within four years after the effective date of this paragraph.

(B) Customers responsible for 75% of the distribution company's annual peak demand within six years after the effective date of this paragraph.

(C) One hundred percent of its customers within ten years after the effective date of this paragraph.

Electric distribution companies shall, with customer consent, make available electronic access to customer meter data to third parties, including electric generation suppliers and providers of conservation and load management services.

(iii) Electric distribution companies shall be permitted to recover all reasonable and prudent costs, as determined by the commission, of providing smart meter technology, including annual deprecation and capital costs over the life of the smart meter technology, that are incurred after the effective date of this paragraph, less all operating and capital costs savings realized by the electric distribution company from the introduction and use of the smart meter technology. An electric distribution company may, at its option, recover such smart meter technology costs:

(A) through base rates, including a deferral for future base rate recovery of current costs, with carrying charges equal to 6%; or

(B) on a full and current basis through a reconcilable automatic adjustment clause under section 1307 (relating to sliding scale of rates; adjustments).

In no event shall lost or decreased revenues by an electric distribution company due to reduced electricity consumption or shifting energy demand be considered a cost of smart meter technology. Smart meter technology shall be deemed to be a new service offered for the first time under section 2804(4)(vi) (relating to standards for restructuring of electric industry).

(iv) By January 1, 2010, or at the end of the applicable generation rate cap period, whichever is later, a default service provider shall submit to the commission one or more proposed time-of-use rates and a real-time price plan. The commission shall approve or modify the time-of-use rates and real-time price plan within six months of submittal. The default service provider shall offer commission-approved time-of-use rates and a real-time price plan to all residential and commercial customers that have been provided with smart meter technology within 60 days of installation of the smart meter technology or commission approval of the time-of-use rates and a real-time price plan, whichever is later. Customer participation in time-of-use rates or real-time pricing shall be voluntary and shall only be provided with the affirmative consent of the customer. The default service provider shall submit an annual report to the commission on the participation in the time-of-use and real-time price programs and the efficacy

of the programs in affecting energy demand and consumption and the effect on wholesale market prices.

(v) For purposes of this paragraph, the term "electric distribution company" shall mean a public utility providing facilities for the jurisdictional transmission and distribution of electricity to 100,000 or more retail customers in this Commonwealth.

Section 5. This act shall take effect immediately.

PUBLIC VERSION - CONFIDENTIAL INFORMATION REDACTED

PRIOR PRINTER'S NOS. 3089, 3176 PRINTER'S NO. 3218

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2200 Session of 2008

INTRODUCED BY GEORGE, McCALL, BELFANTI, CALTAGIRONE, CONKLIN, DALEY, GOODMAN, HARHAI, HARKINS, KULA, MANDERINO, McGEEHAN, VITALI, J. WHITE, WALKO, SURRA, DeLUCA, DERMODY, GRUCELA, JOSEPHS, JAMES, GINGRICH, FREEMAN, K. SMITH, McILVAINE SMITH, YOUNGBLOOD AND FRANKEL, JANUARY 15, 2008

AS AMENDED ON SECOND CONSIDERATION, HOUSE OF REPRESENTATIVES, FEBRUARY 11, 2008

AN ACT

Amending Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes, PROVIDING FOR RECOVERY OF CERTAIN LABOR RELATIONS EXPENSES; further providing for definitions; ~~and~~ providing for adoption of energy efficiency and demand-side response; AND FURTHER PROVIDING FOR DUTIES OF ELECTRIC DISTRIBUTION COMPANIES. <—

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

~~Section 1. Section 2803 of Title 66 of the Pennsylvania Consolidated Statutes is amended by adding definitions to read:~~ <—

SECTION 1. TITLE 66 OF THE PENNSYLVANIA CONSOLIDATED STATUTES IS AMENDED BY ADDING A SECTION TO READ: <—

§ 1329. RECOVERY OF CERTAIN LABOR RELATIONS EXPENSES.

NO PUBLIC UTILITY MAY CHARGE ITS CUSTOMERS AS A PERMISSIBLE OPERATING EXPENSE FOR RATEMAKING PURPOSES ANY PORTION OF THE DIRECT OR INDIRECT COST OF MEETINGS, PUBLICATIONS, CONSULTANTS, ATTORNEYS OR OTHER PROFESSIONAL SERVICES AND EXPENSES ASSOCIATED WITH THE UTILITY'S EFFORTS TO DISSUADE THE EMPLOYEES OF THE

UTILITY, OR THE EMPLOYEES OF ANY AFFILIATED INTEREST OF THE UTILITY AS DEFINED IN SECTION 2101 (RELATING TO DEFINITION OF AFFILIATED INTEREST), FROM BECOMING OR REMAINING A MEMBER IN, OR OTHERWISE BEING REPRESENTED BY, ANY LABOR UNION.

SECTION 2. SECTION 2803 OF TITLE 66 IS AMENDED BY ADDING DEFINITIONS TO READ:

§ 2803. Definitions.

The following words and phrases when used in this chapter shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Affiliated interest." As defined in section 2101 (relating to definition of affiliated interest).

* * *

"Cost effective." In relation to a program being evaluated, satisfaction of the total resource cost test.

* * *

"Demand-side response." Load management technologies, management practices or other strategies employed by retail customers that decrease peak electricity demand or shift demand from on-peak to off-peak periods provided that:

(1) The measure is installed on or after the effective date of this section at the service location of a retail customer.

(2) The measure reduces the peak demand or cost of energy by the retail customer.

(3) The costs of the acquisition or installation of the measure are directly incurred in whole or in part by the electric distribution company.

* * *

"Energy efficiency." Technologies, management practices or

other strategies or measures employed by retail customers that reduce electricity consumption provided that:

(1) The measure is installed on or after the effective date of this definition at the service location of a retail customer.

(2) The measure reduces the consumption of energy by the retail customer.

(3) The costs of the acquisition or installation of the measure are directly incurred in whole or in part by the electric distribution company.

"Independent entity." An entity with no direct or indirect ownership, partnership or other affiliated interest with an electric distribution company.

"Peak demand." The highest electrical requirement occurring during a specified period. For an electric distribution company, the term means the sum of the metered consumption for all retail customers over that period.

~~* * *~~ <—

"REAL-TIME PRICE." A RATE THAT DIRECTLY REFLECTS THE <—
DIFFERENT COST OF ENERGY DURING EACH HOUR.

* * *

"SMART METER TECHNOLOGY." TECHNOLOGY, INCLUDING, BUT NOT LIMITED TO, METERING TECHNOLOGY AND NETWORK COMMUNICATIONS TECHNOLOGY CAPABLE OF BIDIRECTIONAL COMMUNICATION AND 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 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.

"TIME-OF-USE RATE." A RATE THAT REFLECTS THE COSTS OF SERVING CUSTOMERS DURING DIFFERENT TIME PERIODS, INCLUDING OFF-PEAK AND ON-PEAK PERIODS, BUT NOT AS FREQUENTLY AS EACH HOUR.

"Total resources cost test." A standard test that is met if, over the effective life of the program, the avoided supply-side monetary costs are greater than the monetary costs of the demand-side programs borne by both the electric distribution company and the participants.

* * *

Section ~~2~~ 3. Title 66 is amended by adding a section to read: <—

§ 2806.1. Adoption of procedures encouraging energy efficiency and demand-side response.

(a) Program.--The commission shall develop a program to provide for the implementation of cost-effective programs that reduce energy demand and consumption within the service territories of all electric distribution companies throughout this Commonwealth. The program shall include, but is not limited to, the following:

(1) Selecting a program administrator to develop and

oversee the delivery of energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth.

(2) Implementing the necessary administrative and financial mechanisms that will enable the program administrator to develop and oversee the provision of energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth, including the levying of assessments in accordance with sections 510 (relating to assessment for regulatory expenses upon public utilities), 1307 (relating to sliding scale of rates; adjustments) and 1308 (relating to voluntary changes in rates). The commission shall not approve or implement and shall not assess or charge to customers the costs of energy efficiency or demand-response programs to the extent that the costs of such programs exceed 2% of the total annual revenues of the electric distribution company ~~in whose service territory the programs are implemented.~~ FROM ALL SOURCES, INCLUDING DEFAULT SERVICE GENERATION REVENUES AS OF JANUARY 1, 2007. This funding limit shall not include amounts provided for by the low-income usage reduction programs established under regulations at 52 Pa. Code Ch. 58 (relating to residential low income usage reduction programs).

(3) Implementing the necessary administrative and financial mechanisms that facilitate a system of third-party entities to deliver all or portions of the energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth, including the levying of assessments in

accordance with sections 510, 1307 and 1308. The commission may order the electric distribution company to pay the third-party entity for services rendered in an electric distribution company's respective service territory pursuant to this section. The electric distribution company may be a third-party entity.

(b) Selection of program administrator.--The commission shall implement the following procedures when selecting a program administrator:

(1) The commission shall prepare a request for proposals for a program administrator to provide for the development and delivery of the energy efficiency and demand-side response programs in the service territories of all electric distribution companies and shall make the request for proposals available for public comment.

(2) The commission shall, within 60 days of the completion of the public comment period, issue the final request for proposals.

(3) The commission shall, based on a competitive bid process, select an independent entity to serve as the energy efficiency and demand-side response program administrator.

(4) The commission shall include as a part of its agreement with the program administrator a system of performance parameters and a financial mechanism that provides incentives for exceeding established performance parameters and penalties for third parties not meeting established performance parameters.

(c) Powers and duties of program administrator.--The program administrator shall have powers and duties assigned by the commission. The powers and duties shall include, but not be

limited to:

(1) Soliciting through a competitive procurement process within each electric distribution company service territory a program of providing energy efficiency and demand-side response programs to residential, commercial and industrial customers utilizing third-party entities.

(2) Ensuring that each proposal includes, but is not limited to:

(i) A clear delineation of how the program will be conducted.

(ii) The types of specific program measures to be offered.

(iii) The cost and benefit of each program to be offered.

(iv) A process for monitoring and verifying results, data collection and management procedures, program evaluation processes and financial management strategies.

(3) In its review of each proposal received:

(i) Taking into account the unique circumstances of each electric distribution company's service territory.

(ii) Finding that each program is cost effective and that the portfolio of programs is designed to provide every affected customer class with the opportunity to participate and benefit economically.

(iii) Determining the cost-effectiveness of energy efficiency and demand-side response measures using the total resource cost test.

(4) Recommending to the commission those entities best suited to provide energy efficiency and demand-side response programs within the service territory of each electric

distribution company.

(5) In the event no qualified proposals are received that meet the required plan goals in an electric distribution company service territory to conduct the program activities:

(i) Issuing a subsequent request for proposals with plan goals that are reduced no more than necessary to obtain qualified proposals to provide program activities. The lowered plan goals for energy efficiency and demand-side response shall only be in effect for that year.

(ii) In subsequent years, utilizing the plan goals unless no qualified proposals are received to conduct the program activities that meet the plan goals, the program administrator shall issue a subsequent request for proposals in accordance with the procedures identified in this subparagraph.

(6) Executing agreements on behalf of the commission with the selected entity in each electric distribution company service territory to conduct the energy efficiency and demand-side response program. As part of these agreements the program administrator shall ensure that:

(i) The programs offered by the selected entity are provided equitably across all customer classes.

(ii) A clearly defined process for financial compensation for the entity delivering the program which is tied to defined goals for performance regarding program activities accomplished, energy cost savings on a per-customer basis and utility-wide basis and overall energy and peak demand reduction is established.

(iii) A system of incentives and penalties for performance of contractual activities above and below

predetermined levels is in place.

(iv) There is a set contract term which may include an initial three-year term with renewal terms of varied length.

(7) *Submitting reports to the commission at such times* and in such manner as the commission directs.

(d) Commission review of recommendations.--The commission shall review the recommendations made by the program administrator regarding those entities best suited to provide energy efficiency and demand-side response programs within the service territory of each electric distribution company. The commission shall approve or disapprove the recommendations made by the program administrator.

(1) The commission review of the recommendations of the program administrator shall be limited to ensuring that:

(i) There is no evidence of fraud or market abuse.

(ii) Any costs entered into are borne by the appropriate parties and that costs, including the costs of subsection (c)(6)(iv) incentives, related to the provision of the contracted services are borne by the appropriate customer class.

(iii) There will be provided, in a cost-effective *manner, a program that provides energy efficiency and* demand-side response measures to all customer classes throughout the service territory of each electric distribution company.

(2) If the commission approves a third-party entity to conduct the program, the commission shall ensure the program administrator finalizes the agreement between the commission and the third-party entity selected to provide the program of

energy efficiency and demand-side response.

(3) In the event the commission disapproves the recommendation of the program administrator, the commission shall provide a rationale for this decision and direct the program administrator on a course of action.

(e) Plan goals.--The program administrator shall ensure that each proposal submitted by a third-party entity to deliver a program of energy efficiency and demand-side response measures includes meeting the following energy saving goals:

(1) The following relate to energy efficiency goals:

(I) BY MAY 31, 2011, TOTAL ANNUAL DELIVERIES TO RETAIL CUSTOMERS OF ELECTRIC DISTRIBUTION COMPANIES SHALL BE REDUCED BY A MINIMUM OF 1%. THIS LOAD REDUCTION SHALL BE MEASURED AGAINST THE EXPECTED LOAD FORECASTED BY THE COMMISSION FOR JUNE 1, 2010, THROUGH MAY 31, 2011, BASED ON LOAD FOR THE PERIOD JUNE 1, 2007, THROUGH MAY 31, 2008, WITH PROVISION MADE FOR WEATHER ADJUSTMENTS AND EXTRAORDINARY LOAD THAT THE ELECTRIC DISTRIBUTION COMPANY MUST SERVE. THE COMMISSION SHALL DETERMINE AND MAKE PUBLIC THE FORECASTS TO BE USED FOR EACH ELECTRIC DISTRIBUTION COMPANY NO LATER THAN AUGUST 31, 2008. THE PROGRAM ADMINISTRATOR SHALL ENSURE THAT A THIRD-PARTY ENTITY MEETS THE GOALS CONTAINED IN THIS SECTION THROUGH THE IMPLEMENTATION OF A PROGRAM OF ENERGY EFFICIENCY MEASURES THROUGHOUT THE SERVICE TERRITORY OF THE ELECTRIC DISTRIBUTION COMPANY. <—

~~(i)~~ (II) By May 31, 2013, total annual deliveries to retail customers of electric distribution companies shall be reduced by a minimum of 2.5%. ~~, with provision made for weather adjustments and extraordinary load that the~~ <—

~~electric distribution company must serve.~~ This load reduction shall be measured against the expected load forecasted by the commission for June 1, 2012, through May 31, 2013, based on load for the period June 1, 2007, through May 31, 2008, WITH PROVISION MADE FOR WEATHER ADJUSTMENTS AND EXTRAORDINARY LOAD THAT THE ELECTRIC DISTRIBUTION COMPANY MUST SERVE. The commission shall determine and make public the forecasts to be used for each electric distribution company no later than August 31, 2008. The program administrator shall ensure that a third-party entity meets the goals contained in this section through the implementation of a program of energy efficiency measures throughout the service territory of the electric distribution company.

~~(ii)~~ (III) By November 30, 2013, the program administrator shall evaluate the costs and benefits of these energy efficiency and conservation programs. If the benefits have been shown to exceed the costs, consistent with the total resource cost test, the program administrator, in consultation with the commission, shall set additional, incremental energy efficiency and conservation goals for the period ending May 31, 2018.

~~(iii)~~ (IV) After May 31, 2018, the program administrator shall continue to evaluate the costs and benefits of efficiency and conservation measures and, in consultation with the commission, may adopt additional incremental load reduction standards for electric distribution companies.

(2) The following relate to demand-side response measures:

(i) Cost-effective demand-side response measures to reduce peak demand by a minimum of 4% in the 100 hours of highest demand with provision made for weather adjustments and extraordinary load that the electric distribution company must serve shall be implemented in each electric distribution company's service territory. This reduction will be measured against the electric distribution company's peak demand in the 100 hours of greatest demand for June 1, 2007, through May 31, 2008. The reductions shall be accomplished by May 31, 2012.

(ii) By November 30, 2012, the program administrator shall compare the total costs of these demand-side response measures to the total savings in energy and capacity costs to retail customers of this Commonwealth. If the benefits have been shown to exceed the costs, consistent with the total resource cost test, the commission shall order additional peak demand reductions for the 100 hours of greatest demand or an alternative measure adopted by the commission. The reductions shall be measured from the electric distribution company's peak demand for the period from June 1, 2011, through May 31, 2012. The mandated reductions shall be accomplished no later than May 31, 2017.

(iii) After May 31, 2017, the program administrator shall continue to evaluate the costs and benefits of demand-side response measures and may, in consultation with the commission, adopt additional incremental peak load reduction standards.

(f) Measurements and verification.--The commission shall establish standards by which the program administrator submits

to the commission an annual report, which includes that information relating to the actions and results of the energy efficiency and demand-side response programs undertaken within each electric distribution service territory by each third-party entity.

(1) The report shall include, but not be limited to:

(i) Documentation of program expenditures.

(ii) Measurement and verification of savings resulting from programs.

(iii) Evaluation of the cost-effectiveness of expenditures.

(iv) Any other information the commission may require pursuant to its rulemaking authority.

(2) The program administrator, upon consultation with the commission, shall direct a third-party entity to modify or terminate a particular energy efficiency or a demand-side response program if, after an adequate period for implementation of the program, the commission determines the program is not sufficiently meeting its goals and purposes.

(3) In the event an energy efficiency or demand-side response program is terminated, the program administrator shall require the third-party entity to submit a revised program describing the actions to be undertaken to either offer a substitute program or increase the availability of existing programs to make up for the effect of the terminated program on its overall program goals.

(g) Responsibilities of electric distribution companies.--Each electric distribution company that does not seek to be a third-party entity shall:

(1) Cooperate with the program administrator as needed

in its efforts to competitively procure the services of a third-party entity to provide an energy efficiency and demand-side response program within the service territory of the electric distribution company.

(2) Provide information necessary to effectively facilitate the work of the selected third-party entity in conducting the energy efficiency and demand-side response program.

(3) Provide assistance as may be requested by the program administrator in reviewing proposals from third-party entities seeking to provide energy efficiency and demand-side response programs within their service territories.

(4) Provide assistance as may be requested by the program administrator to facilitate the successful execution of the contract agreement with the third-party entities to provide an energy efficiency and demand-side response program within their service territories.

(h) Recovery of administrative and program costs.--An electric distribution company may fully recover all administrative costs, including, but not limited to, costs incurred under subsections (a)(3) and (g)(1), (2), (3) and (4), that the commission determines are prudently incurred and reasonable in amount pursuant to implementing a program to deliver cost-effective energy efficiency and demand-side response activities through a third-party entity. Program and administrative costs shall be recovered on a full and current basis by the electric distribution company from customers through a reconcilable automatic adjustment clause pursuant to section 1307. Energy efficiency and demand-side resource programs shall be deemed to be a new service offered for the

first time under section 2804(4)(vi) (relating to standards for restructuring of electric industry).

(i) Reporting.--The commission shall submit an annual report to the General Assembly describing the results of the programs implemented by each of the electric distribution companies, including, but not limited to:

(1) The costs, benefits and reductions in energy costs.

(2) Energy use by customer class within this Commonwealth.

(3) Reductions in overall peak demand and projections toward complying with the overall target reduction goals of this section.

(j) Definitions.--For purposes of this section, the term "electric distribution company" shall mean a public utility providing facilities for the jurisdictional transmission and distribution of electricity to 100,000 or more retail customers in this Commonwealth.

SECTION 4. SECTION 2807(E) OF TITLE 66 IS AMENDED BY ADDING A PARAGRAPH TO READ: <—

§ 2807. DUTIES OF ELECTRIC DISTRIBUTION COMPANIES.

* * *

(E) OBLIGATION TO SERVE.--* * *

(6) (I) 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 AND MAKE THE PLAN AVAILABLE FOR PUBLIC COMMENT FOR A MINIMUM OF 30 DAYS. THE PLAN SHALL DESCRIBE THE SMART METER TECHNOLOGIES THE ELECTRIC DISTRIBUTION COMPANY PROPOSES TO INSTALL, HOW THE SMART METER TECHNOLOGY MEETS THE

REQUIREMENTS OF THIS PARAGRAPH AND HOW THE SMART METER TECHNOLOGY SHALL BE INSTALLED ACCORDING TO THIS PARAGRAPH. IN ADDITION, THE PLAN SHALL ENSURE THAT ALL SMART METER TECHNOLOGY INSTALLATION AND MAINTENANCE WORK SHALL BE PERFORMED BY ADEQUATELY TRAINED AND QUALIFIED PERSONNEL AND THAT, TO THE EXTENT PRACTICAL, SUCH WORK SHALL BE OFFERED INITIALLY TO EMPLOYEES OF THE ELECTRIC DISTRIBUTION COMPANY.

(II) ELECTRIC DISTRIBUTION COMPANIES SHALL FURNISH SMART METER TECHNOLOGY TO:

(A) CUSTOMERS RESPONSIBLE FOR 40% OF THE DISTRIBUTION COMPANY'S ANNUAL PEAK DEMAND WITHIN FOUR YEARS AFTER THE EFFECTIVE DATE OF THIS PARAGRAPH.

(B) CUSTOMERS RESPONSIBLE FOR 75% OF THE DISTRIBUTION COMPANY'S ANNUAL PEAK DEMAND WITHIN SIX YEARS AFTER THE EFFECTIVE DATE OF THIS PARAGRAPH.

(C) ONE HUNDRED PERCENT OF ITS CUSTOMERS WITHIN TEN YEARS AFTER THE EFFECTIVE DATE OF THIS PARAGRAPH.

ELECTRIC DISTRIBUTION COMPANIES SHALL, WITH CUSTOMER CONSENT, MAKE AVAILABLE ELECTRONIC ACCESS TO CUSTOMER METER DATA TO THIRD PARTIES, INCLUDING ELECTRIC GENERATION SUPPLIERS AND PROVIDERS OF CONSERVATION AND LOAD MANAGEMENT SERVICES.

(III) ELECTRIC DISTRIBUTION COMPANIES SHALL BE PERMITTED TO RECOVER ALL REASONABLE AND PRUDENT COSTS, AS DETERMINED BY THE COMMISSION, OF PROVIDING SMART METER TECHNOLOGY, INCLUDING ANNUAL DEPRECATION AND CAPITAL COSTS OVER THE LIFE OF THE SMART METER TECHNOLOGY, THAT ARE INCURRED AFTER THE EFFECTIVE DATE OF THIS PARAGRAPH, LESS ALL OPERATING AND CAPITAL COSTS SAVINGS REALIZED BY

THE ELECTRIC DISTRIBUTION COMPANY FROM THE INTRODUCTION AND USE OF THE SMART METER TECHNOLOGY. AN ELECTRIC DISTRIBUTION COMPANY MAY, AT ITS OPTION, RECOVER SUCH SMART METER TECHNOLOGY COSTS:

(A) THROUGH BASE RATES, INCLUDING A DEFERRAL FOR FUTURE BASE RATE RECOVERY OF CURRENT COSTS, WITH CARRYING CHARGES EQUAL TO 6%; OR

(B) ON A FULL AND CURRENT BASIS THROUGH A RECONCILABLE AUTOMATIC ADJUSTMENT CLAUSE UNDER SECTION 1307 (RELATING TO SLIDING SCALE OF RATES; ADJUSTMENTS).

IN NO EVENT SHALL LOST OR DECREASED REVENUES BY AN ELECTRIC DISTRIBUTION COMPANY DUE TO REDUCED ELECTRICITY CONSUMPTION OR SHIFTING ENERGY DEMAND BE CONSIDERED A COST OF SMART METER TECHNOLOGY. SMART METER TECHNOLOGY SHALL BE DEEMED TO BE A NEW SERVICE OFFERED FOR THE FIRST TIME UNDER SECTION 2804(4)(VI) (RELATING TO STANDARDS FOR RESTRUCTURING OF ELECTRIC INDUSTRY).

(IV) BY JANUARY 1, 2010, OR AT THE END OF THE APPLICABLE GENERATION RATE CAP PERIOD, WHICHEVER IS LATER, A DEFAULT SERVICE PROVIDER SHALL SUBMIT TO THE COMMISSION ONE OR MORE PROPOSED TIME-OF-USE RATES AND A REAL-TIME PRICE PLAN. THE COMMISSION SHALL APPROVE OR MODIFY THE TIME-OF-USE RATES AND REAL-TIME PRICE PLAN WITHIN SIX MONTHS OF SUBMITTAL. THE DEFAULT SERVICE PROVIDER SHALL OFFER COMMISSION-APPROVED TIME-OF-USE RATES AND A REAL-TIME PRICE PLAN TO ALL RESIDENTIAL AND COMMERCIAL CUSTOMERS THAT HAVE BEEN PROVIDED WITH SMART METER TECHNOLOGY WITHIN 60 DAYS OF INSTALLATION OF THE SMART METER TECHNOLOGY OR COMMISSION APPROVAL OF THE

TIME-OF-USE RATES AND A REAL-TIME PRICE PLAN, WHICHEVER IS LATER. CUSTOMER PARTICIPATION IN TIME-OF-USE RATES OR REAL-TIME PRICING SHALL BE VOLUNTARY AND SHALL ONLY BE PROVIDED WITH THE AFFIRMATIVE CONSENT OF THE CUSTOMER. THE DEFAULT SERVICE PROVIDER SHALL SUBMIT AN ANNUAL REPORT TO THE COMMISSION ON THE PARTICIPATION IN THE TIME-OF-USE AND REAL-TIME PRICE PROGRAMS AND THE EFFICACY OF THE PROGRAMS IN AFFECTING ENERGY DEMAND AND CONSUMPTION AND THE EFFECT ON WHOLESALE MARKET PRICES.

(V) FOR PURPOSES OF THIS PARAGRAPH, THE TERM "ELECTRIC DISTRIBUTION COMPANY" SHALL MEAN A PUBLIC UTILITY PROVIDING FACILITIES FOR THE JURISDICTIONAL TRANSMISSION AND DISTRIBUTION OF ELECTRICITY TO 100,000 OR MORE RETAIL CUSTOMERS IN THIS COMMONWEALTH.

Section ~~3~~ 5. This act shall take effect immediately. <—

SENATE AMENDED
PRIOR PRINTER'S NOS. 3089, 3176, 3218, 3233 PRINTER'S NO. 4429

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2200 Session of 2008

INTRODUCED BY GEORGE, McCALL, BELFANTI, CALTAGIRONE, CONKLIN, DALEY, GOODMAN, HARHAI, HARKINS, KULA, MANDERINO, McGEEHAN, VITALI, J. WHITE, WALKO, SURRA, DeLUCA, DERMODY, GRUCELA, JOSEPHS, JAMES, GINGRICH, FREEMAN, K. SMITH, McILVAINE SMITH, YOUNGBLOOD AND FRANKEL, JANUARY 15, 2008

SENATOR TOMLINSON, CONSUMER PROTECTION AND PROFESSIONAL LICENSURE, IN SENATE, AS AMENDED, SEPTEMBER 23, 2008

AN ACT

Amending Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes, ~~providing for recovery of certain labor relations expenses; further providing for definitions; providing for adoption of energy efficiency and demand-side response; and further providing for duties of electric distribution companies.~~ FURTHER PROVIDING FOR DEFINITIONS; PROVIDING FOR ENERGY EFFICIENCY AND CONSERVATION; FURTHER PROVIDING FOR DUTIES OF ELECTRIC DISTRIBUTION COMPANIES; AND PROVIDING FOR PROCUREMENT.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

~~Section 1. Title 66 of the Pennsylvania Consolidated Statutes is amended by adding a section to read:~~

~~§ 1329. Recovery of certain labor relations expenses.~~

~~No public utility may charge its customers as a permissible operating expense for ratemaking purposes any portion of the direct or indirect cost of meetings, publications, consultants, attorneys or other professional services and expenses associated~~

with the utility's efforts to dissuade the employees of the utility, or the employees of any affiliated interest of the utility as defined in section 2101 (relating to definition of affiliated interest), from becoming or remaining a member in, or otherwise being represented by, any labor union.

Section 2. Section 2803 of Title 66 is amended by adding definitions to read:

§ 2803. Definitions.

The following words and phrases when used in this chapter shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Affiliated interest." As defined in section 2101 (relating to definition of affiliated interest).

* * *

"Cost effective." In relation to a program being evaluated, satisfaction of the total resource cost test.

* * *

"Demand-side response." Load management technologies, management practices or other strategies employed by retail customers that decrease peak electricity demand or shift demand from on-peak to off-peak periods provided that:

(1) The measure is installed on or after the effective date of this section at the service location of a retail customer.

(2) The measure reduces the peak demand or cost of energy by the retail customer.

(3) The costs of the acquisition or installation of the measure are directly incurred in whole or in part by the electric distribution company.

* * *

"Energy efficiency." Technologies, management practices or other strategies or measures employed by retail customers that reduce electricity consumption provided that:

(1) The measure is installed on or after the effective date of this definition at the service location of a retail customer.

(2) The measure reduces the consumption of energy by the retail customer.

(3) The costs of the acquisition or installation of the measure are directly incurred in whole or in part by the electric distribution company.

"Independent entity." An entity with no direct or indirect ownership, partnership or other affiliated interest with an electric distribution company.

"Peak demand." The highest electrical requirement occurring during a specified period. For an electric distribution company, the term means the sum of the metered consumption for all retail customers over that period.

"Real-time price." A rate that directly reflects the different cost of energy during each hour.

* * *

"Smart meter technology." Technology, including, but not limited to, metering technology and network communications technology capable of bidirectional communication and 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 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.~~

~~"Time-of-use rate." A rate that reflects the costs of serving customers during different time periods, including off-peak and on-peak periods, but not as frequently as each hour.~~

~~"Total resources cost test." A standard test that is met if, over the effective life of the program, the avoided supply-side monetary costs are greater than the monetary costs of the demand-side programs borne by both the electric distribution company and the participants.~~

~~* * *~~

~~Section 3. Title 66 is amended by adding a section to read:~~

~~§ 2806.1. Adoption of procedures encouraging energy efficiency and demand-side response.~~

~~(a) Program. The commission shall develop a program to provide for the implementation of cost-effective programs that reduce energy demand and consumption within the service territories of all electric distribution companies throughout this Commonwealth. The program shall include, but is not limited to, the following:~~

~~(1) Selecting a program administrator to develop and oversee the delivery of energy efficiency and demand-side~~

~~response programs within the service territory of each electric distribution company within this Commonwealth.~~

~~(2) Implementing the necessary administrative and financial mechanisms that will enable the program administrator to develop and oversee the provision of energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth, including the levying of assessments in accordance with sections 510 (relating to assessment for regulatory expenses upon public utilities), 1307 (relating to sliding scale of rates; adjustments) and 1308 (relating to voluntary changes in rates). The commission shall not approve or implement and shall not assess or charge to customers the costs of energy efficiency or demand-response programs to the extent that the costs of such programs exceed 2% of the total annual revenues of the electric distribution company from all sources, including default service generation revenues as of January 1, 2007. This funding limit shall not include amounts provided for by the low-income usage reduction programs established under regulations at 52 Pa. Code Ch. 58 (relating to residential low-income usage reduction programs).~~

~~(3) Implementing the necessary administrative and financial mechanisms that facilitate a system of third-party entities to deliver all or portions of the energy efficiency and demand-side response programs within the service territory of each electric distribution company within this Commonwealth, including the levying of assessments in accordance with sections 510, 1307 and 1308. The commission may order the electric distribution company to pay the third-~~

party entity for services rendered in an electric distribution company's respective service territory pursuant to this section. The electric distribution company may be a third-party entity.

(b) Selection of program administrator.--The commission shall implement the following procedures when selecting a program administrator:

(1) The commission shall prepare a request for proposals for a program administrator to provide for the development and delivery of the energy efficiency and demand-side response programs in the service territories of all electric distribution companies and shall make the request for proposals available for public comment.

(2) The commission shall, within 60 days of the completion of the public comment period, issue the final request for proposals.

(3) The commission shall, based on a competitive bid process, select an independent entity to serve as the energy efficiency and demand-side response program administrator.

(4) The commission shall include as a part of its agreement with the program administrator a system of performance parameters and a financial mechanism that provides incentives for exceeding established performance parameters and penalties for third parties not meeting established performance parameters.

(c) Powers and duties of program administrator.--The program administrator shall have powers and duties assigned by the commission. The powers and duties shall include, but not be limited to:

(1) Soliciting through a competitive procurement process

~~within each electric distribution company service territory a program of providing energy efficiency and demand side response programs to residential, commercial and industrial customers utilizing third party entities.~~

~~(2) Ensuring that each proposal includes, but is not limited to:~~

~~(i) A clear delineation of how the program will be conducted.~~

~~(ii) The types of specific program measures to be offered.~~

~~(iii) The cost and benefit of each program to be offered.~~

~~(iv) A process for monitoring and verifying results, data collection and management procedures, program evaluation processes and financial management strategies.~~

~~(3) In its review of each proposal received:~~

~~(i) Taking into account the unique circumstances of each electric distribution company's service territory.~~

~~(ii) Finding that each program is cost effective and that the portfolio of programs is designed to provide every affected customer class with the opportunity to participate and benefit economically.~~

~~(iii) Determining the cost effectiveness of energy efficiency and demand side response measures using the total resource cost test.~~

~~(4) Recommending to the commission those entities best suited to provide energy efficiency and demand side response programs within the service territory of each electric distribution company.~~

~~(5) In the event no qualified proposals are received~~

~~that meet the required plan goals in an electric distribution company service territory to conduct the program activities:~~

~~(i) Issuing a subsequent request for proposals with plan goals that are reduced no more than necessary to obtain qualified proposals to provide program activities. The lowered plan goals for energy efficiency and demand-side response shall only be in effect for that year.~~

~~(ii) In subsequent years, utilizing the plan goals unless no qualified proposals are received to conduct the program activities that meet the plan goals, the program administrator shall issue a subsequent request for proposals in accordance with the procedures identified in this subparagraph.~~

~~(6) Executing agreements on behalf of the commission with the selected entity in each electric distribution company service territory to conduct the energy efficiency and demand-side response program. As part of these agreements the program administrator shall ensure that:~~

~~(i) The programs offered by the selected entity are provided equitably across all customer classes.~~

~~(ii) A clearly defined process for financial compensation for the entity delivering the program which is tied to defined goals for performance regarding program activities accomplished, energy cost savings on a per-customer basis and utility-wide basis and overall energy and peak demand reduction is established.~~

~~(iii) A system of incentives and penalties for performance of contractual activities above and below predetermined levels is in place.~~

~~(iv) There is a set contract term which may include~~

~~an initial three-year term with renewal terms of varied length.~~

~~(7) Submitting reports to the commission at such times and in such manner as the commission directs.~~

~~(d) Commission review of recommendations. The commission shall review the recommendations made by the program administrator regarding those entities best suited to provide energy efficiency and demand side response programs within the service territory of each electric distribution company. The commission shall approve or disapprove the recommendations made by the program administrator.~~

~~(1) The commission review of the recommendations of the program administrator shall be limited to ensuring that:~~

~~(i) There is no evidence of fraud or market abuse.~~

~~(ii) Any costs entered into are borne by the appropriate parties and that costs, including the costs of subsection (c)(6)(iii) incentives, related to the provision of the contracted services are borne by the appropriate customer class.~~

~~(iii) There will be provided, in a cost-effective manner, a program that provides energy efficiency and demand-side response measures to all customer classes throughout the service territory of each electric distribution company.~~

~~(2) If the commission approves a third-party entity to conduct the program, the commission shall ensure the program administrator finalizes the agreement between the commission and the third-party entity selected to provide the program of energy efficiency and demand-side response.~~

~~(3) In the event the commission disapproves the~~

~~recommendation of the program administrator, the commission shall provide a rationale for this decision and direct the program administrator on a course of action.~~

~~(c) Plan goals. The program administrator shall ensure that each proposal submitted by a third-party entity to deliver a program of energy efficiency and demand-side response measures includes meeting the following energy saving goals:~~

~~(1) The following relate to energy efficiency goals:~~

~~(i) By May 31, 2011, total annual deliveries to retail customers of electric distribution companies shall be reduced by a minimum of 1%. This load reduction shall be measured against the expected load forecasted by the commission for June 1, 2010, through May 31, 2011, based on load for the period June 1, 2007, through May 31, 2008, with provision made for weather adjustments and extraordinary load that the electric distribution company must serve. The commission shall determine and make public the forecasts to be used for each electric distribution company no later than August 31, 2008. The program administrator shall ensure that a third-party entity meets the goals contained in this section through the implementation of a program of energy efficiency measures throughout the service territory of the electric distribution company.~~

~~(ii) By May 31, 2013, total annual deliveries to retail customers of electric distribution companies shall be reduced by a minimum of 2.5%. This load reduction shall be measured against the expected load forecasted by the commission for June 1, 2012, through May 31, 2013, based on load for the period June 1, 2007, through May~~

~~31, 2008, with provision made for weather adjustments and extraordinary load~~ that ~~the electric distribution company must serve. The commission shall determine and make public the forecasts to be used for each electric distribution company no later than August 31, 2008. The program administrator shall ensure that a third-party entity meets the goals contained in this section through the implementation of a program of energy efficiency measures throughout the service territory of the electric distribution company.~~

~~(iii) By November 30, 2013, the program administrator shall evaluate the costs and benefits of these energy efficiency and conservation programs. If the benefits have been shown to exceed the costs, consistent with the total resource cost test, the program administrator, in consultation with the commission, shall set additional, incremental energy efficiency and conservation goals for the period ending May 31, 2018.~~

~~(iv) After May 31, 2018, the program administrator shall continue to evaluate the costs and benefits of efficiency and conservation measures and, in consultation with the commission, may adopt additional incremental load reduction standards for electric distribution companies.~~

~~(2) The following relate to demand-side response measures:~~

~~(i) Cost-effective demand-side response measures to reduce peak demand by a minimum of 4% in the 100 hours of highest demand with provision made for weather adjustments and extraordinary load that the electric~~

~~distribution company must serve shall be implemented in each electric distribution company's service territory. This reduction will be measured against the electric distribution company's peak demand in the 100 hours of greatest demand for June 1, 2007, through May 31, 2008. The reductions shall be accomplished by May 31, 2012.~~

~~(ii) By November 30, 2012, the program administrator shall compare the total costs of these demand-side response measures to the total savings in energy and capacity costs to retail customers of this Commonwealth. If the benefits have been shown to exceed the costs, consistent with the total resource cost test, the commission shall order additional peak demand reductions for the 100 hours of greatest demand or an alternative measure adopted by the commission. The reductions shall be measured from the electric distribution company's peak demand for the period from June 1, 2011, through May 31, 2012. The mandated reductions shall be accomplished no later than May 31, 2017.~~

~~(iii) After May 31, 2017, the program administrator shall continue to evaluate the costs and benefits of demand-side response measures and may, in consultation with the commission, adopt additional incremental peak load reduction standards.~~

~~(f) Measurements and verification. The commission shall establish standards by which the program administrator submits to the commission an annual report, which includes that information relating to the actions and results of the energy efficiency and demand side response programs undertaken within each electric distribution service territory by each third party~~

~~entity.~~

~~(1) The report shall include, but not be limited to:~~

~~(i) Documentation of program expenditures.~~

~~(ii) Measurement and verification of savings resulting from programs.~~

~~(iii) Evaluation of the cost-effectiveness of expenditures.~~

~~(iv) Any other information the commission may require pursuant to its rulemaking authority.~~

~~(2) The program administrator, upon consultation with the commission, shall direct a third-party entity to modify or terminate a particular energy efficiency or a demand-side response program if, after an adequate period for implementation of the program, the commission determines the program is not sufficiently meeting its goals and purposes.~~

~~(3) In the event an energy efficiency or demand-side response program is terminated, the program administrator shall require the third-party entity to submit a revised program describing the actions to be undertaken to either offer a substitute program or increase the availability of existing programs to make up for the effect of the terminated program on its overall program goals.~~

~~(g) Responsibilities of electric distribution companies.~~ ~~Each electric distribution company that does not seek to be a third-party entity shall:~~

~~(1) Cooperate with the program administrator as needed in its efforts to competitively procure the services of a third-party entity to provide an energy efficiency and demand-side response program within the service territory of the electric distribution company.~~

~~(2) Provide information necessary to effectively facilitate the work of the selected third-party entity in conducting the energy efficiency and demand-side response program.~~

~~(3) Provide assistance as may be requested by the program administrator in reviewing proposals from third-party entities seeking to provide energy efficiency and demand-side response programs within their service territories.~~

~~(4) Provide assistance as may be requested by the program administrator to facilitate the successful execution of the contract agreement with the third-party entities to provide an energy efficiency and demand-side response program within their service territories.~~

~~(h) Recovery of administrative and program costs.--An electric distribution company may fully recover all administrative costs, including, but not limited to, costs incurred under subsections (a)(3) and (g)(1), (2), (3) and (4), that the commission determines are prudently incurred and reasonable in amount pursuant to implementing a program to deliver cost-effective energy efficiency and demand-side response activities through a third-party entity. Program and administrative costs shall be recovered on a full and current basis by the electric distribution company from customers through a reconcilable automatic adjustment clause pursuant to section 1307. Energy efficiency and demand-side resource programs shall be deemed to be a new service offered for the first time under section 2804(4)(vi) (relating to standards for restructuring of electric industry).~~

~~(i) Reporting.--The commission shall submit an annual report to the General Assembly describing the results of the programs~~

implemented by each of the electric distribution companies, including, but not limited to:

(1) The costs, benefits and reductions in energy costs.

(2) Energy use by customer class within this Commonwealth.

(3) Reductions in overall peak demand and projections toward complying with the overall target reduction goals of this section.

(j) Definitions. For purposes of this section, the term "electric distribution company" shall mean a public utility providing facilities for the jurisdictional transmission and distribution of electricity to 100,000 or more retail customers in this Commonwealth.

Section 4. Section 2807(e) of Title 66 is amended by adding a paragraph to read:

§ 2807. Duties of electric distribution companies.

* * *

(e) Obligation to serve. * * *

(6) (i) 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 and make the plan available for public comment for a minimum of 30 days. The plan shall describe the smart meter technologies the electric distribution company proposes to install, how the smart meter technology meets the requirements of this paragraph and how the smart meter technology shall be installed according to this paragraph. In addition, the plan shall ensure that all smart meter technology installation and maintenance work

~~shall be performed by adequately trained and qualified personnel and that, to the extent practical, such work shall be offered initially to employees of the electric distribution company.~~

~~(ii) Electric distribution companies shall furnish smart meter technology to:~~

~~(A) Customers responsible for 40% of the distribution company's annual peak demand within four years after the effective date of this paragraph.~~

~~(B) Customers responsible for 75% of the distribution company's annual peak demand within six years after the effective date of this paragraph.~~

~~(C) One hundred percent of its customers within ten years after the effective date of this paragraph.~~

~~Electric distribution companies shall, with customer consent, make available electronic access to customer meter data to third parties, including electric generation suppliers and providers of conservation and load management services.~~

~~(iii) Electric distribution companies shall be permitted to recover all reasonable and prudent costs, as determined by the commission, of providing smart meter technology, including annual depreciation and capital costs over the life of the smart meter technology, that are incurred after the effective date of this paragraph, less all operating and capital costs savings realized by the electric distribution company from the introduction and use of the smart meter technology. An electric distribution company may, at its option, recover such smart meter technology costs:~~

~~(A) through base rates, including a deferral for future base rate recovery of current costs, with carrying charges equal to 6%; or~~

~~(B) on a full and current basis through a reconcilable automatic adjustment clause under section 1307 (relating to sliding scale of rates; adjustments).~~

~~In no event shall lost or decreased revenues by an electric distribution company due to reduced electricity consumption or shifting energy demand be considered a cost of smart meter technology. Smart meter technology shall be deemed to be a new service offered for the first time under section 2804(4)(vi) (relating to standards for restructuring of electric industry).~~

~~(iv) By January 1, 2010, or at the end of the applicable generation rate cap period, whichever is later, a default service provider shall submit to the commission one or more proposed time-of-use rates and a real-time price plan. The commission shall approve or modify the time-of-use rates and real-time price plan within six months of submittal. The default service provider shall offer commission-approved time-of-use rates and a real-time price plan to all residential and commercial customers that have been provided with smart meter technology within 60 days of installation of the smart meter technology or commission approval of the time-of-use rates and a real-time price plan, whichever is later. Customer participation in time-of-use rates or real-time pricing shall be voluntary and shall only be provided with the affirmative consent of the customer.~~

~~The default service provider shall submit an annual report to the commission on the participation in the time-of-use and real-time price programs and the efficacy of the programs in affecting energy demand and consumption and the effect on wholesale market prices.~~

~~(v) For purposes of this paragraph, the term "electric distribution company" shall mean a public utility providing facilities for the jurisdictional transmission and distribution of electricity to 100,000 or more retail customers in this Commonwealth.~~

~~Section 5. This act shall take effect immediately.~~

SECTION 1. SECTION 2803 OF TITLE 66 OF THE PENNSYLVANIA <—
CONSOLIDATED STATUTES IS AMENDED BY ADDING DEFINITIONS TO READ:

§ 2803. DEFINITIONS.

THE FOLLOWING WORDS AND PHRASES WHEN USED IN THIS CHAPTER SHALL HAVE THE MEANINGS GIVEN TO THEM IN THIS SECTION UNLESS THE CONTEXT CLEARLY INDICATES OTHERWISE:

* * *

"BILATERAL CONTRACT." AN AGREEMENT, AS APPROVED BY THE PENNSYLVANIA PUBLIC UTILITY COMMISSION, REACHED BY TWO PARTIES, EACH ACTING IN ITS OWN INDEPENDENT SELF-INTEREST, AS A RESULT OF NEGOTIATIONS FREE OF UNDUE INFLUENCE, DURESS OR FAVORITISM, IN WHICH THE ELECTRIC ENERGY SUPPLIER AGREES TO SELL AND THE ELECTRIC DISTRIBUTION COMPANY AGREES TO BUY A QUANTITY OF ELECTRIC ENERGY AT A SPECIFIED PRICE FOR A SPECIFIED PERIOD OF TIME UNDER TERMS AGREED TO BY BOTH PARTIES, AND WHICH FOLLOWS A STANDARD INDUSTRY TEMPLATE WIDELY ACCEPTED IN THE INDUSTRY OR VARIATIONS THERETO ACCEPTED BY THE PARTIES. STANDARD INDUSTRY TEMPLATES MAY INCLUDE THE EEI MASTER AGREEMENT FOR PHYSICAL ENERGY PURCHASES AND SALES AND THE ISDA MASTER AGREEMENT FOR

FINANCIAL ENERGY PURCHASES AND SALES.

* * *

"DEFAULT SERVICE PROVIDER." AN ELECTRIC DISTRIBUTION COMPANY WITHIN ITS CERTIFIED SERVICE TERRITORY OR AN ALTERNATIVE SUPPLIER APPROVED BY THE PENNSYLVANIA PUBLIC UTILITY COMMISSION THAT PROVIDES GENERATION SERVICE TO RETAIL ELECTRIC CUSTOMERS WHO:

(1) CONTRACT FOR ELECTRIC POWER, INCLUDING ENERGY AND CAPACITY, AND THE CHOSEN ELECTRIC GENERATION SUPPLIER DOES NOT SUPPLY THE SERVICE; OR

(2) DO NOT CHOOSE AN ALTERNATIVE ELECTRIC GENERATION SUPPLIER.

SECTION 2. TITLE 66 IS AMENDED BY ADDING A SECTION TO READ:

§ 2806.1. ENERGY EFFICIENCY AND CONSERVATION.

(A) PROGRAM.--THE COMMISSION SHALL ADOPT A PROGRAM TO REQUIRE ELECTRIC DISTRIBUTION COMPANIES TO ADOPT AND IMPLEMENT COST-EFFECTIVE ENERGY EFFICIENCY AND CONSERVATION PLANS TO REDUCE ENERGY DEMAND AND CONSUMPTION WITHIN THE SERVICE TERRITORIES OF ALL ELECTRIC DISTRIBUTION COMPANIES IN THIS COMMONWEALTH. THE PROGRAM SHALL INCLUDE:

(1) PROCEDURES FOR THE APPROVAL OF PLANS SUBMITTED UNDER SUBSECTION (B).

(2) A PLAN EVALUATION PROCESS INCLUDING A PROCESS TO MONITOR AND VERIFY DATA COLLECTION, QUALITY ASSURANCE AND RESULTS SUBMITTED.

(3) AN ANALYSIS OF THE COST AND BENEFIT OF EACH PLAN SUBMITTED UNDER SUBSECTION (B) IN ACCORDANCE WITH A TOTAL RESOURCE COST TEST.

(4) AN ANALYSIS OF HOW THE PROGRAM AND INDIVIDUAL PLANS WILL ENABLE EACH ELECTRIC DISTRIBUTION COMPANY TO ACHIEVE THE

REQUIREMENTS FOR REDUCTION IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D).

(5) STANDARDS TO ENSURE THAT EACH PLAN INCLUDES A VARIETY OF ENERGY EFFICIENCY AND CONSERVATION MEASURES AND WILL PROVIDE THE MEASURES EQUITABLY TO ALL CLASSES OF CUSTOMERS.

(6) PROCEDURES TO REVIEW ALL PROPOSED CONTRACTS PRIOR TO THE EXECUTION OF THE CONTRACT WITH THIRD-PARTY ENTITIES TO IMPLEMENT THE PLAN. THE COMMISSION MAY ORDER THE MODIFICATION OF A PROPOSED CONTRACT TO ENSURE THAT THE PLAN IS ADEQUATE.

(7) PROCEDURES TO ENSURE COMPLIANCE WITH REQUIREMENTS FOR REDUCTION IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D).

(8) A REQUIREMENT FOR THE PARTICIPATION OF THIRD-PARTY ENTITIES IN THE IMPLEMENTATION OF ALL OR PART OF A PLAN.

(9) A PROCESS TO LINK REDUCTIONS IN CONSUMPTION TO THE COMPENSATION OF THIRD-PARTY ENTITIES.

(10) PROCEDURES FOR THE LEVY OF ASSESSMENTS IN ACCORDANCE WITH SECTIONS 510 (RELATING TO ASSESSMENT FOR REGULATORY EXPENSES UPON PUBLIC UTILITIES) AND 1308 (RELATING TO VOLUNTARY CHANGES IN RATES) SUBJECT TO THE LIMITATIONS OF SUBSECTION (G) TO FUND PLANS FILED UNDER SUBSECTION (B) SUBJECT TO THE LIMITATIONS SET FORTH UNDER SUBSECTION (G).

(B) DUTIES OF ELECTRIC DISTRIBUTION COMPANIES.--

(1) (I) BY NOVEMBER 15, 2008, EACH ELECTRIC DISTRIBUTION COMPANY SHALL DEVELOP AND FILE AN ENERGY EFFICIENCY AND CONSERVATION PLAN WITH THE COMMISSION FOR APPROVAL TO MEET THE REQUIREMENTS OF SUBSECTION (A) AND THE REQUIREMENTS FOR REDUCTION IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D). THE PLAN SHALL BE IMPLEMENTED UPON APPROVAL BY THE COMMISSION AND SHALL COMPLY WITH ALL

OF THE FOLLOWING:

(A) INCLUDE SPECIFIC PROPOSALS TO IMPLEMENT ENERGY EFFICIENCY AND CONSERVATION MEASURES TO ACHIEVE THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D).

(B) A MINIMUM OF 10% OF THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D) SHALL BE OBTAINED FROM UNITS OF FEDERAL, STATE AND LOCAL GOVERNMENT, INCLUDING MUNICIPALITIES, SCHOOL DISTRICTS, INSTITUTIONS OF HIGHER EDUCATION AND NONPROFIT ENTITIES.

(C) THE MANNER IN WHICH PERFORMANCE WILL BE MEASURED, VERIFIED AND EVALUATED.

(D) THE MANNER IN WHICH THE PLAN WILL ACHIEVE THE REQUIREMENTS OF THE PROGRAM UNDER SUBSECTION (A) AND THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D).

(E) INCLUDE A CONTRACT WITH ONE OR MORE THIRD-PARTY ENTITIES TO IMPLEMENT THE PLAN OR A PORTION OF THE PLAN AS APPROVED BY THE COMMISSION.

(F) INCLUDE ESTIMATES OF THE COST OF IMPLEMENTATION OF THE ENERGY EFFICIENCY AND CONSERVATION MEASURES IN THE PLAN.

(G) INCLUDE SPECIFIC ENERGY EFFICIENCY MEASURES FOR HOUSEHOLDS AT OR BELOW 150% OF THE FEDERAL POVERTY INCOME GUIDELINES. THE NUMBER OF MEASURES SHALL BE PROPORTIONATE TO THOSE HOUSEHOLDS' SHARE OF THE TOTAL ENERGY USAGE IN THIS COMMONWEALTH. THE ELECTRIC DISTRIBUTION COMPANY SHALL COORDINATE MEASURES UNDER THIS CLAUSE WITH OTHER PROGRAMS

ADMINISTERED BY THE COMMISSION OR ANOTHER FEDERAL OR STATE AGENCY. THE EXPENDITURES OF AN ELECTRIC DISTRIBUTION COMPANY UNDER THIS CLAUSE SHALL BE IN ADDITION TO EXPENDITURES MADE UNDER 52 PA. CODE CH. 58 (RELATING TO RESIDENTIAL LOW INCOME USAGE REDUCTION PROGRAMS).

(H) INCLUDE A PROPOSED COST-RECOVERY TARIFF MECHANISM TO FUND THE ENERGY EFFICIENCY AND CONSERVATION MEASURES AND TO ENSURE RECOVERY OF THE PRUDENT AND REASONABLE COSTS OF THE PLAN AS APPROVED BY THE COMMISSION.

(I) A DEMONSTRATION THAT THE PLAN IS COST-EFFECTIVE USING A TOTAL RESOURCE COST TEST OR OTHER COST-BENEFIT ANALYSIS APPROVED BY THE COMMISSION AND PROVIDES A DIVERSE CROSS SECTION OF ALTERNATIVES FOR CUSTOMERS OF ALL RATE CLASSES.

(J) REQUIRE AN ANNUAL INDEPENDENT EVALUATION OF THE PERFORMANCE OF THE COST-EFFECTIVENESS OF THE PLAN AND A FULL REVIEW OF THE FIVE-YEAR RESULTS OF THE PLAN AND, TO THE EXTENT PRACTICABLE, HOW THE PLAN WILL BE ADJUSTED ON A GOING-FORWARD BASIS AS A RESULT OF THE EVALUATION.

(II) A NEW PLAN SHALL BE FILED WITH THE COMMISSION EVERY FIVE YEARS OR AS OTHERWISE REQUIRED BY THE COMMISSION. THE PLAN SHALL SET FORTH THE MANNER IN WHICH THE COMPANY WILL MEET THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D).

(III) NO MORE THAN 2% OF FUNDS AVAILABLE TO *IMPLEMENT A PLAN UNDER THIS SUBSECTION SHALL BE ALLOCATED* FOR EXPERIMENTAL EQUIPMENT OR DEVICES.

(2) THE COMMISSION SHALL DIRECT AN ELECTRIC DISTRIBUTION COMPANY TO MODIFY OR TERMINATE ANY PART OF A PLAN APPROVED UNDER THIS SECTION IF, AFTER AN ADEQUATE PERIOD FOR IMPLEMENTATION, THE COMMISSION DETERMINES THAT AN ENERGY EFFICIENCY OR CONSERVATION MEASURE INCLUDED IN THE PLAN IS NOT EFFECTIVE.

(3) IF PART OF A PLAN IS MODIFIED OR TERMINATED UNDER PARAGRAPH (2), THE ELECTRIC DISTRIBUTION COMPANY SHALL SUBMIT A REVISED PLAN DESCRIBING ACTIONS TO BE TAKEN TO OFFER SUBSTITUTE MEASURES OR TO INCREASE THE AVAILABILITY OF EXISTING MEASURES IN THE PLAN TO ACHIEVE THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTIONS (C) AND (D).

(C) REDUCTIONS IN CONSUMPTION.--EACH ELECTRIC DISTRIBUTION COMPANY SHALL REDUCE CONSUMPTION AS FOLLOWS:

(1) BY MAY 31, 2011, EACH ELECTRIC DISTRIBUTION COMPANY SHALL REDUCE ITS TOTAL ANNUAL WEATHER-NORMALIZED DELIVERIES TO RETAIL CUSTOMERS BY A MINIMUM OF 1%. THE 1% LOAD REDUCTION IN CONSUMPTION SHALL BE MEASURED AGAINST THE ELECTRIC DISTRIBUTION COMPANY'S EXPECTED LOAD AS FORECASTED BY THE COMMISSION FOR JUNE 1, 2007 THROUGH MAY 31, 2008, WITH PROVISIONS MADE FOR WEATHER ADJUSTMENTS AND EXTRAORDINARY LOADS THAT THE ELECTRIC DISTRIBUTION COMPANY MUST SERVE.

(2) BY MAY 31, 2013, EACH ELECTRIC DISTRIBUTION COMPANY SHALL REDUCE ITS TOTAL ANNUAL WEATHER-NORMALIZED DELIVERIES TO RETAIL CUSTOMERS BY A MINIMUM OF 2.5%. THE 2.5% LOAD REDUCTION IN CONSUMPTION SHALL BE MEASURED AGAINST THE ELECTRIC DISTRIBUTION COMPANY'S EXPECTED LOAD AS FORECASTED BY THE COMMISSION FOR JUNE 1, 2007, THROUGH MAY 31, 2008, WITH PROVISION MADE FOR WEATHER ADJUSTMENTS AND EXTRAORDINARY LOADS THAT THE ELECTRIC DISTRIBUTION COMPANY MUST SERVE.

(3) BY NOVEMBER 30, 2013, THE COMMISSION SHALL EVALUATE THE COSTS AND BENEFITS OF THE PROGRAM ESTABLISHED UNDER SUBSECTION (A) AND ENERGY EFFICIENCY AND CONSERVATION PLANS SUBMITTED TO THE PROGRAM. THE EVALUATION SHALL BE CONSISTENT WITH A TOTAL RESOURCE COST TEST OR A COST VERSUS BENEFIT MEASUREMENT DETERMINED BY THE COMMISSION. IF THE COMMISSION DETERMINES THAT THE BENEFITS OF THE PROGRAM EXCEED THE COSTS, THE COMMISSION SHALL ADOPT ADDITIONAL INCREMENTAL REQUIRED REDUCTIONS IN CONSUMPTION FOR THE PERIOD ENDING MAY 31, 2018.

(4) AFTER MAY 31, 2018, THE COMMISSION SHALL CONTINUE TO EVALUATE THE COSTS AND BENEFITS OF THE PROGRAM ESTABLISHED UNDER SUBSECTION (A) AND ENERGY EFFICIENCY AND CONSERVATION PLANS APPROVED UNDER SUBSECTION (A). IF THE COMMISSION DETERMINES THAT THE BENEFITS OF THE PROGRAM EXCEED THE COSTS, THE COMMISSION MAY REQUIRE AND APPROVE ADDITIONAL PLANS TO ACHIEVE INCREMENTAL REQUIREMENTS FOR REDUCTION IN CONSUMPTION FOR ELECTRIC DISTRIBUTION COMPANIES. EACH PLAN SHALL BE FOR A TERM NOT TO EXCEED FIVE YEARS.

(D) PEAK DEMAND.--EACH ELECTRIC DISTRIBUTION COMPANY SHALL IMPLEMENT ENERGY EFFICIENCY AND CONSERVATION MEASURES TO ACHIEVE THE FOLLOWING REDUCTIONS IN CONSUMPTION:

(1) BY MAY 31, 2013, EACH ENERGY DISTRIBUTION COMPANY SHALL REDUCE ITS WEATHER-NORMALIZED DELIVERIES TO RETAIL CUSTOMERS BY A MINIMUM OF 4% IN THE 100 HOURS OF HIGHEST DEMAND. THE REDUCTION SHALL BE MEASURED AGAINST THE ELECTRIC DISTRIBUTION COMPANY'S PEAK DEMAND IN THE 100 HOURS OF GREATEST DEMAND FOR JUNE 1, 2007, THROUGH MAY 31, 2008.

(2) BY NOVEMBER 30, 2013, THE COMMISSION SHALL COMPARE THE TOTAL COSTS OF ENERGY EFFICIENCY AND CONSERVATION PLANS IMPLEMENTED UNDER THIS SECTION TO THE TOTAL SAVINGS IN ENERGY

AND CAPACITY COSTS TO RETAIL CUSTOMERS IN THIS COMMONWEALTH. IF THE COMMISSION DETERMINES THAT THE BENEFITS OF THE MEASURES EXCEED THE COSTS, THE COMMISSION SHALL SET ADDITIONAL INCREMENTAL REQUIREMENTS FOR REDUCTION IN PEAK DEMAND FOR THE 100 HOURS OF GREATEST DEMAND OR AN ALTERNATIVE REDUCTION APPROVED BY THE COMMISSION. REDUCTIONS IN CONSUMPTION SHALL BE MEASURED FROM THE ELECTRIC DISTRIBUTION COMPANY'S PEAK DEMAND FOR THE PERIOD FROM JUNE 1, 2011, THROUGH MAY 31, 2012. THE REDUCTIONS IN CONSUMPTION REQUIRED BY THE COMMISSION SHALL BE ACCOMPLISHED NO LATER THAN MAY 31, 2017.

(E) COMMISSION APPROVAL.--THE COMMISSION SHALL APPROVE OR DISAPPROVE A PLAN FILED UNDER SUBSECTION (B) WITHIN 120 DAYS OF SUBMISSION. THE FOLLOWING SHALL APPLY TO AN ORDER DISAPPROVING A PLAN:

(1) THE COMMISSION SHALL DESCRIBE IN DETAIL THE REASONS FOR THE DISAPPROVAL.

(2) THE ELECTRIC DISTRIBUTION COMPANY SHALL HAVE 60 DAYS TO FILE A REVISED PLAN TO ADDRESS THE DEFICIENCIES IDENTIFIED BY THE COMMISSION.

(F) PENALTIES.--

(1) THE FOLLOWING SHALL APPLY FOR FAILURE TO SUBMIT A PLAN:

(I) AN ELECTRIC DISTRIBUTION COMPANY THAT FAILS TO FILE A PLAN UNDER SUBSECTION (B) SHALL BE SUBJECT TO A CIVIL PENALTY OF $100,000 PER DAY UNTIL THE PLAN IS FILED.

(II) AN ELECTRIC DISTRIBUTION COMPANY THAT FAILS TO FILE A REVISED PLAN UNDER SUBSECTION (E)(2) SHALL BE SUBJECT TO A CIVIL PENALTY OF $100,000 PER DAY UNTIL THE

PLAN IS FILED.

(III) PENALTIES COLLECTED UNDER THIS PARAGRAPH SHALL BE DEPOSITED IN THE LOW-INCOME ELECTRIC CUSTOMER ASSISTANCE PROGRAM OF THE ENERGY DISTRIBUTION COMPANY FOR THE RESPECTIVE SERVICE TERRITORY.

(2) THE FOLLOWING SHALL APPLY TO AN ELECTRIC DISTRIBUTION COMPANY THAT FAILS TO ACHIEVE THE REDUCTIONS IN CONSUMPTION REQUIRED UNDER SUBSECTION (C) OR (D):

(I) THE ELECTRIC DISTRIBUTION COMPANY SHALL BE SUBJECT TO A CIVIL PENALTY OF UP TO $5,000,000 FOR FAILURE TO ACHIEVE THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTION (C) OR (D). ANY PENALTY PAID BY AN ELECTRIC DISTRIBUTION COMPANY UNDER THIS SUBPARAGRAPH SHALL NOT BE RECOVERABLE FROM RATEPAYERS.

(II) IF AN ELECTRIC DISTRIBUTION COMPANY FAILS TO ACHIEVE THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTION (C) OR (D) BY 2013, RESPONSIBILITY TO ACHIEVE THE REDUCTIONS IN CONSUMPTION SHALL BE TRANSFERRED TO THE COMMISSION. THE COMMISSION SHALL DO ALL OF THE FOLLOWING:

(A) IMPLEMENT A PLAN TO ACHIEVE THE REQUIRED REDUCTIONS IN CONSUMPTION UNDER SUBSECTION (C) OR (D).

(B) CONTRACT WITH THIRD-PARTY ENTITIES AS NECESSARY TO IMPLEMENT ANY PORTION OF THE PLAN.

(III) THE PROVISIONS OF SUBPARAGRAPH (II) SHALL APPLY IN EACH SUBSEQUENT FIVE-YEAR PERIOD IF THE ELECTRIC DISTRIBUTION COMPANY FAILS TO ACHIEVE THE REDUCTION STANDARDS UNDER SUBSECTION (C) OR (D).

(G) LIMITATION ON COSTS.--THE TOTAL COST OF ANY PLAN REQUIRED UNDER THIS SECTION SHALL NOT EXCEED 2% OF THE ELECTRIC

DISTRIBUTION COMPANY'S TOTAL ANNUAL REVENUE AS OF DECEMBER 31, 2006. NO MORE THAN 1% OF THE 2% OF THE COMPANY'S TOTAL ANNUAL REVENUE MAY BE USED FOR THE ADMINISTRATIVE COSTS OF THE ELECTRIC DISTRIBUTION COMPANY. THE LIMITATION UNDER THIS PARAGRAPH SHALL NOT INCLUDE THE COST OF LOW-INCOME USAGE REDUCTION PROGRAMS ESTABLISHED UNDER 52 PA. CODE CH. 58 (RELATING TO RESIDENTIAL LOW INCOME USAGE REDUCTION PROGRAMS).

(H) REPORT.--THE FOLLOWING SHALL APPLY:

(1) EACH ELECTRIC DISTRIBUTION COMPANY SHALL SUBMIT AN ANNUAL REPORT TO THE COMMISSION RELATING TO THE RESULTS OF THE ENERGY EFFICIENCY AND CONSERVATION PLAN WITHIN THE ELECTRIC DISTRIBUTION SERVICE TERRITORY. THE REPORT SHALL INCLUDE ALL OF THE FOLLOWING:

(I) DOCUMENTATION OF PROGRAM EXPENDITURES.

(II) MEASUREMENT AND VERIFICATION OF ENERGY SAVINGS UNDER THE PLAN.

(III) EVALUATION OF THE COST-EFFECTIVENESS OF EXPENDITURES.

(IV) ANY OTHER INFORMATION REQUIRED BY THE COMMISSION.

(2) BEGINNING FIVE YEARS FOLLOWING THE EFFECTIVE DATE OF THIS SECTION AND ANNUALLY THEREAFTER, THE COMMISSION SHALL SUBMIT A REPORT TO THE CONSUMER PROTECTION AND PROFESSIONAL LICENSURE COMMITTEE OF THE SENATE AND THE CONSUMER AFFAIRS COMMITTEE OF THE HOUSE OF REPRESENTATIVES.

(I) EXISTING FUNDING SOURCES.--EACH ELECTRIC DISTRIBUTION COMPANY SHALL PROVIDE A LIST OF ALL ELIGIBLE FEDERAL AND STATE FUNDING PROGRAMS.

(J) RECOVERY.--IN NO CASE SHALL DECREASED REVENUES OF AN ELECTRIC DISTRIBUTION COMPANY DUE TO REDUCED ENERGY CONSUMPTION

OR CHANGES IN ENERGY DEMAND BE CONSIDERED A RECOVERABLE COST.

(K) APPLICABILITY.--THIS SECTION SHALL NOT APPLY TO AN ELECTRIC DISTRIBUTION COMPANY WITH FEWER THAN 100,000 CUSTOMERS.

(L) DEFINITIONS.--AS USED IN THIS SECTION, THE FOLLOWING WORDS AND PHRASES SHALL HAVE THE MEANINGS GIVEN TO THEM IN THIS SUBSECTION:

"ELECTRIC DISTRIBUTION COMPANY TOTAL ANNUAL REVENUE." AMOUNTS PAID TO THE ELECTRIC DISTRIBUTION COMPANY FOR GENERATION, TRANSMISSION, DISTRIBUTION AND SURCHARGES BY RETAIL CUSTOMERS.

"ENERGY EFFICIENCY AND CONSERVATION MEASURES."

(1) TECHNOLOGIES, MANAGEMENT PRACTICES OR OTHER MEASURES EMPLOYED BY RETAIL CUSTOMERS THAT REDUCE ELECTRICITY CONSUMPTION OR DEMAND IF ALL OF THE FOLLOWING APPLY:

(I) THE TECHNOLOGY, PRACTICE OR OTHER MEASURE IS INSTALLED ON OR AFTER THE EFFECTIVE DATE OF THIS SECTION AT THE LOCATION OF A RETAIL CUSTOMER.

(II) THE TECHNOLOGY, PRACTICE OR OTHER MEASURE REDUCES CONSUMPTION OF ENERGY BY THE RETAIL CUSTOMER.

(III) THE COST OF THE ACQUISITION OR INSTALLATION OF THE MEASURE IS DIRECTLY INCURRED IN WHOLE OR IN PART BY THE ELECTRIC DISTRIBUTION COMPANY.

(2) ENERGY EFFICIENCY AND CONSERVATION MEASURES SHALL INCLUDE SOLAR OR SOLAR PHOTOVOLTAIC PANELS, ENERGY EFFICIENT WINDOWS AND DOORS, ENERGY EFFICIENT LIGHTING, INCLUDING EXIT SIGN RETROFIT, HIGH BAY FLUORESCENT RETROFIT AND PEDESTRIAN AND TRAFFIC SIGNAL CONVERSION, GEOTHERMAL HEATING, INSULATION, AIR SEALING, REFLECTIVE ROOF COATINGS, ENERGY EFFICIENT HEATING AND COOLING EQUIPMENT OR SYSTEMS AND ENERGY EFFICIENT APPLIANCES AND OTHER TECHNOLOGIES, PRACTICES OR

MEASURES APPROVED BY THE COMMISSION.

"PEAK DEMAND." THE HIGHEST ELECTRICAL REQUIREMENT OCCURRING DURING A SPECIFIED PERIOD. FOR AN ELECTRIC DISTRIBUTION COMPANY, THE TERM SHALL MEAN THE SUM OF THE METERED CONSUMPTION FOR ALL RETAIL CUSTOMERS OVER THAT PERIOD.

"QUALITY ASSURANCE." ALL OF THE FOLLOWING:

(1) THE AUDITING OF BUILDINGS, EQUIPMENT AND PROCESSES TO DETERMINE THE COST-EFFECTIVENESS OF ENERGY EFFICIENCY AND CONSERVATION MEASURES USING NATIONALLY RECOGNIZED TOOLS AND CERTIFICATION PROGRAMS.

(2) INDEPENDENT INSPECTION OF COMPLETED ENERGY EFFICIENCY AND CONSERVATION MEASURES COMPLETED BY THIRD-PARTY ENTITIES TO EVALUATE THE QUALITY OF THE COMPLETED MEASURE.

"REAL-TIME PRICE." A RATE THAT DIRECTLY REFLECTS THE DIFFERENT COST OF ENERGY DURING EACH HOUR.

"THIRD-PARTY ENTITY." AN ENTITY WITH NO DIRECT OR INDIRECT OWNERSHIP, PARTNERSHIP OR OTHER AFFILIATED INTEREST WITH AN ELECTRIC DISTRIBUTION COMPANY.

"TIME-OF-USE RATE." A RATE THAT REFLECTS THE COSTS OF SERVING CUSTOMERS DURING DIFFERENT TIME PERIODS, INCLUDING OFF-PEAK AND ON-PEAK PERIODS, BUT NOT AS FREQUENTLY AS EACH HOUR.

"TOTAL RESOURCE COST TEST." A STANDARD TEST THAT IS MET IF, OVER THE EFFECTIVE LIFE OF EACH PLAN NOT TO EXCEED FIVE YEARS, THE AVOIDED MONETARY COSTS OF SUPPLYING ELECTRICITY ARE GREATER THAN THE MONETARY COSTS OF ENERGY EFFICIENCY MEASURES AND CONSERVATION OF CONSUMPTION.

SECTION 3. SECTION 2807(E) OF TITLE 66 IS AMENDED AND THE SECTION IS AMENDED BY ADDING SUBSECTIONS TO READ:

§ 2807. DUTIES OF ELECTRIC DISTRIBUTION COMPANIES.

* * *

(E) OBLIGATION TO SERVE.--[AN ELECTRIC DISTRIBUTION COMPANY'S] A DEFAULT SERVICE PROVIDER'S OBLIGATION TO PROVIDE ELECTRIC GENERATION SUPPLY SERVICE FOLLOWING [IMPLEMENTATION OF RESTRUCTURING AND THE CHOICE OF ALTERNATIVE GENERATION BY A CUSTOMER] THE EXPIRATION OF A GENERATION RATE CAP SPECIFIED UNDER SECTION 2804(4) (RELATING TO STANDARDS FOR RESTRUCTURING OF ELECTRIC INDUSTRY) OR A RESTRUCTURING PLAN UNDER SECTION 2806(F) (RELATING TO IMPLEMENTATION, PILOT PROGRAMS AND PERFORMANCE-BASED RATES) IS REVISED AS FOLLOWS:

(1) WHILE AN ELECTRIC DISTRIBUTION COMPANY COLLECTS EITHER A COMPETITIVE TRANSITION CHARGE OR AN INTANGIBLE TRANSITION CHARGE OR UNTIL 100% OF ITS CUSTOMERS HAVE CHOICE, WHICHEVER IS LONGER, THE ELECTRIC DISTRIBUTION COMPANY SHALL CONTINUE TO HAVE THE FULL OBLIGATION TO SERVE, INCLUDING THE CONNECTION OF CUSTOMERS, THE DELIVERY OF ELECTRIC ENERGY AND THE PRODUCTION OR ACQUISITION OF ELECTRIC ENERGY FOR CUSTOMERS.

[(2) AT THE END OF THE TRANSITION PERIOD, THE COMMISSION SHALL PROMULGATE REGULATIONS TO DEFINE THE ELECTRIC DISTRIBUTION COMPANY'S OBLIGATION TO CONNECT AND DELIVER AND ACQUIRE ELECTRICITY UNDER PARAGRAPH (3) THAT WILL EXIST AT THE END OF THE PHASE-IN PERIOD.

(3) IF A CUSTOMER CONTRACTS FOR ELECTRIC ENERGY AND IT IS NOT DELIVERED OR IF A CUSTOMER DOES NOT CHOOSE AN ALTERNATIVE ELECTRIC GENERATION SUPPLIER, THE ELECTRIC DISTRIBUTION COMPANY OR COMMISSION-APPROVED ALTERNATIVE SUPPLIER SHALL ACQUIRE ELECTRIC ENERGY AT PREVAILING MARKET PRICES TO SERVE THAT CUSTOMER AND SHALL RECOVER FULLY ALL REASONABLE COSTS.]

(3.1) (I) FOLLOWING THE EXPIRATION OF AN ELECTRIC

DISTRIBUTION COMPANY'S OBLIGATION TO PROVIDE ELECTRIC GENERATION SUPPLY SERVICE TO RETAIL CUSTOMERS AT CAPPED RATES, IF A CUSTOMER CONTRACTS FOR ELECTRIC GENERATION SUPPLY SERVICE AND THE CHOSEN ELECTRIC GENERATION SUPPLIER DOES NOT PROVIDE THE SERVICE OR IF A CUSTOMER DOES NOT CHOOSE AN ALTERNATIVE ELECTRIC GENERATION SUPPLIER, THE DEFAULT SERVICE PROVIDER SHALL PROVIDE ELECTRIC GENERATION SUPPLY SERVICE TO THAT CUSTOMER PURSUANT TO A COMMISSION-APPROVED COMPETITIVE PROCUREMENT PLAN. THE ELECTRIC POWER ACQUIRED SHALL BE PROCURED THROUGH COMPETITIVE PROCUREMENT PROCESSES AND SHALL INCLUDE ONE OR MORE OF THE FOLLOWING:

(A) AUCTIONS.

(B) REQUESTS FOR PROPOSAL.

(C) BILATERAL AGREEMENTS ENTERED INTO AT THE SOLE DISCRETION OF THE DEFAULT SERVICE PROVIDER WHICH SHALL BE AT PRICES WHICH ARE:

(I) NO GREATER THAN THE COST OF OBTAINING GENERATION UNDER COMPARABLE TERMS IN THE WHOLESALE MARKET, AS DETERMINED BY THE COMMISSION AT THE TIME OF EXECUTION OF THE CONTRACT; OR

(II) CONSISTENT WITH A COMMISSION-APPROVED COMPETITION PROCUREMENT PROCESS. ANY AGREEMENT BETWEEN AFFILIATED PARTIES SHALL BE SUBJECT TO REVIEW AND APPROVAL OF THE PENNSYLVANIA PUBLIC UTILITY COMMISSION UNDER CHAPTER 21 (RELATING TO RELATIONS WITH AFFILIATED INTERESTS). IN NO CASE SHALL THE COST OF OBTAINING GENERATION FROM ANY AFFILIATED INTEREST BE GREATER THAN THE COST OF OBTAINING GENERATION UNDER COMPARABLE TERMS IN

THE WHOLESALE MARKET AT THE TIME OF EXECUTION OF THE CONTRACT.

(II) THE PROVISIONS OF THIS PARAGRAPH SHALL APPLY TO ANY TYPE OF FUEL PURCHASED BY A DEFAULT SERVICE PROVIDER TO PROVIDE ELECTRIC GENERATION SUPPLY SERVICE, INCLUDING FUEL REQUIRED TO BE PURCHASED UNDER THE ACT OF NOVEMBER 30, 2004 (P.L.1672, NO.213), KNOWN AS THE ALTERNATIVE ENERGY PORTFOLIO STANDARDS ACT.

(3.2) THE ELECTRIC POWER PROCURED PURSUANT TO PARAGRAPH (3.1) SHALL INCLUDE A PRUDENT MIX OF THE FOLLOWING:

(I) SPOT MARKET PURCHASES.

(II) SHORT-TERM CONTRACTS.

(III) LONG-TERM PURCHASE CONTRACTS, ENTERED INTO AS A RESULT OF AN AUCTION, REQUEST FOR PROPOSAL OR BILATERAL CONTRACT THAT IS FREE OF UNDUE INFLUENCE, DURESS OR FAVORITISM, OF NOT LESS THAN THREE AND NOT MORE THAN 20 YEARS, UNLESS THE COMMISSION DETERMINES A LONGER TERM IS NECESSARY FOR THE RELIABILITY IN THE ACQUISITION OF GENERATION AND IT IS IN THE BEST INTEREST OF CONSUMERS TO EXTEND THE TERM OF THE CONTRACT BEYOND 20 YEARS. THE DEFAULT SERVICE PROVIDER SHALL HAVE SOLE DISCRETION TO DETERMINE THE SOURCE, FUEL TYPE AND LENGTH OF CONTRACT.

(3.3) THE PRUDENT MIX OF CONTRACTS ENTERED INTO PURSUANT TO PARAGRAPH (3.2) SHALL BE DESIGNED TO ENSURE:

(I) ADEQUATE AND RELIABLE SERVICE.

(II) THE LEAST COST TO CUSTOMERS OVER TIME.

(III) COMPLIANCE WITH THE REQUIREMENTS OF PARAGRAPH (3.1).

(3.4) THE DEFAULT SERVICE PROVIDER SHALL FILE A PLAN FOR COMPETITIVE PROCUREMENT WITH THE COMMISSION AND OBTAIN

COMMISSION APPROVAL OF THE PLAN CONSIDERING THE STANDARDS IN PARAGRAPHS (3.1), (3.2) AND (3.3) BEFORE THE COMPETITIVE PROCESS IS IMPLEMENTED. THE COMMISSION SHALL HOLD HEARINGS AS NECESSARY ON THE PROPOSED PLAN. IF THE COMMISSION FAILS TO ISSUE A FINAL ORDER ON THE PLAN WITHIN NINE MONTHS OF THE DATE THAT THE PLAN IS FILED, THE PLAN SHALL BE DEEMED TO BE APPROVED AND THE DEFAULT SERVICE PROVIDER MAY IMPLEMENT THE PLAN AS FILED. COSTS INCURRED THROUGH AN APPROVED COMPETITIVE PROCUREMENT PLAN SHALL BE DEEMED TO BE THE LEAST COST OVER TIME AS REQUIRED UNDER PARAGRAPH (3.3).

(3.5) AT THE TIME THE COMMISSION EVALUATES THE PLAN AND PRIOR TO APPROVAL, IN DETERMINING IF THE DEFAULT ELECTRIC SERVICE PROVIDER'S PLAN OBTAINS GENERATION SUPPLY AT THE LEAST COST, THE COMMISSION SHALL CONSIDER THE DEFAULT SERVICE PROVIDER'S OBLIGATION TO PROVIDE ADEQUATE AND RELIABLE SERVICE TO THE CUSTOMERS AND THAT THE DEFAULT SERVICE PROVIDER HAS OBTAINED A PRUDENT MIX OF CONTRACTS TO OBTAIN LEAST COST ON LONG-TERM, SHORT-TERM AND SPOT MARKET BASIS AND SHALL MAKE SPECIFIC FINDINGS WHICH SHALL INCLUDE THE FOLLOWING:

(I) THE DEFAULT SERVICE PROVIDER'S PLAN INCLUDES PRUDENT STEPS NECESSARY TO NEGOTIATE FAVORABLE GENERATION SUPPLY CONTRACTS.

(II) THE DEFAULT SERVICE PROVIDER'S PLAN INCLUDES PRUDENT STEPS NECESSARY TO OBTAIN LEAST COST GENERATION SUPPLY CONTRACTS ON A LONG-TERM, SHORT-TERM AND SPOT MARKET BASIS.

(III) NEITHER THE DEFAULT SERVICE PROVIDER NOR ITS AFFILIATED INTEREST HAS WITHHELD OR ASKED TO WITHHOLD FROM THE MARKET ANY GENERATION SUPPLY WHICH SHOULD HAVE

BEEN UTILIZED AS PART OF THE LEAST COST PROCUREMENT POLICY.

(3.6) NOTWITHSTANDING SECTIONS 508 (RELATING TO POWER OF COMMISSION TO VARY, REFORM AND REVISE CONTRACTS) AND 2102 (RELATING TO APPROVAL OF CONTRACTS WITH AFFILIATED INTERESTS), THE COMMISSION SHALL NOT MODIFY CONTRACTS OR DISALLOW COSTS ASSOCIATED WITH AN APPROVED PROCUREMENT PROCESS WHEN IT HAS REVIEWED AND APPROVED THE RESULTS OF THE PROCUREMENT.

(3.7) NOTWITHSTANDING ANY OTHER PROVISION OF THIS TITLE TO THE CONTRARY, THE COMMISSION MAY MODIFY CONTRACTS OR DISALLOW COSTS WHEN THE PARTY SEEKING RECOVERY OF THE COSTS IS AT FAULT ASSOCIATED WITH CONTRACTS ENTERED INTO PURSUANT TO A COMMISSION-APPROVED PROCUREMENT PLAN IF THE COMMISSION DETERMINES AFTER A HEARING THAT:

(I) THE CONTRACT HAS NOT BEEN IMPLEMENTED OR APPROVED OR DOES NOT COMPLY WITH THE COMMISSION-APPROVED PROCUREMENT PLAN; OR

(II) THERE HAS BEEN FRAUD, COLLUSION OR MARKET MANIPULATION WITH REGARD TO THESE CONTRACTS.

(3.8) THE DEFAULT SERVICE PROVIDER SHALL HAVE THE RIGHT TO RECOVER ON A FULL AND CURRENT BASIS, PURSUANT TO A RECONCILABLE AUTOMATIC ADJUSTMENT CLAUSE UNDER SECTION 1307 (RELATING TO SLIDING SCALE OF RATES; ADJUSTMENTS), ALL COSTS INCURRED UNDER THIS SECTION AND A COMMISSION-APPROVED COMPETITIVE PROCUREMENT PLAN.

(4) IF A CUSTOMER THAT CHOOSES AN ALTERNATIVE SUPPLIER AND SUBSEQUENTLY DESIRES TO RETURN TO THE LOCAL DISTRIBUTION COMPANY FOR GENERATION SERVICE, THE LOCAL DISTRIBUTION COMPANY SHALL TREAT THAT CUSTOMER EXACTLY AS IT WOULD ANY NEW

APPLICANT FOR ENERGY SERVICE.

(5) (I) NOTWITHSTANDING PARAGRAPH [(3)] (3.1), THE ELECTRIC DISTRIBUTION COMPANY OR COMMISSION-APPROVED ALTERNATIVE SUPPLIER MAY, IN ITS SOLE DISCRETION, OFFER LARGE CUSTOMERS WITH A PEAK DEMAND OF 15 MEGAWATTS OR GREATER AT ONE METER AT A LOCATION IN ITS SERVICE TERRITORY ANY NEGOTIATED RATE FOR SERVICE AT ALL OF THE CUSTOMERS' LOCATIONS WITHIN THE SERVICE TERRITORY FOR ANY DURATION AGREED UPON BY THE ELECTRIC DISTRIBUTION COMPANY OR COMMISSION-APPROVED ALTERNATIVE SUPPLIER AND THE LARGE CUSTOMER. THE COMMISSION SHALL PERMIT, BUT SHALL NOT REQUIRE, AN ELECTRIC DISTRIBUTION COMPANY OR COMMISSION-APPROVED ALTERNATIVE SUPPLIER TO PROVIDE SERVICE TO LARGE CUSTOMERS UNDER THIS PARAGRAPH. CONTRACT RATES ENTERED INTO UNDER THIS PARAGRAPH SHALL BE SUBJECT TO REVIEW BY THE COMMISSION IN ORDER TO ENSURE THAT ALL COSTS RELATED TO THE RATES ARE BORNE BY THE PARTIES TO THE CONTRACT AND THAT NO COSTS RELATED TO THE RATES ARE BORNE BY OTHER CUSTOMERS OR CUSTOMER CLASSES. IF NO COSTS RELATED TO THE RATES ARE BORNE BY OTHER CUSTOMERS OR CUSTOMER CLASSES, THE COMMISSION SHALL APPROVE THE CONTRACT WITHIN 90 DAYS OF ITS FILING, OR IT SHALL BE DEEMED APPROVED BY OPERATION OF LAW UPON EXPIRATION OF THE 90 DAYS. INFORMATION SUBMITTED UNDER THIS PARAGRAPH SHALL BE SUBJECT TO THE COMMISSION'S PROCEDURES FOR THE FILING OF CONFIDENTIAL AND PROPRIETARY INFORMATION.

(II) FOR PURPOSES OF PROVIDING SERVICE UNDER THIS PARAGRAPH TO CUSTOMERS WITH A PEAK DEMAND OF 20 MEGAWATTS OR GREATER AT ONE METER AT A LOCATION WITHIN THAT DISTRIBUTION COMPANY'S SERVICE TERRITORY, AN ELECTRIC

DISTRIBUTION COMPANY THAT HAS COMPLETED ITS RESTRUCTURING TRANSITION PERIOD AS OF THE EFFECTIVE DATE OF THIS PARAGRAPH MAY, IN ITS SOLE DISCRETION, ACQUIRE AN INTEREST IN A GENERATION FACILITY OR CONSTRUCT A GENERATION FACILITY SPECIFICALLY TO MEET THE ENERGY REQUIREMENTS OF THE CUSTOMERS, INCLUDING THE ELECTRIC REQUIREMENTS OF THE CUSTOMERS' OTHER BILLING LOCATIONS WITHIN ITS SERVICE TERRITORY. THE ELECTRIC DISTRIBUTION COMPANY MUST COMMENCE CONSTRUCTION OF THE GENERATION FACILITY OR CONTRACT TO ACQUIRE THE GENERATION INTEREST WITHIN THREE YEARS AFTER THE EFFECTIVE DATE OF THIS PARAGRAPH, EXCEPT THAT THE ELECTRIC DISTRIBUTION COMPANY MAY ADD TO THE GENERATION FACILITIES IT COMMENCED CONSTRUCTION OR CONTRACTED TO ACQUIRE AFTER THIS THREE-YEAR PERIOD TO SERVE ADDITIONAL LOAD OF CUSTOMERS FOR WHOM IT COMMENCED CONSTRUCTION OR CONTRACTED TO ACQUIRE GENERATION WITHIN THREE YEARS. NOTHING IN THIS PARAGRAPH REQUIRES OR AUTHORIZES THE COMMISSION TO REQUIRE AN ELECTRIC DISTRIBUTION COMPANY TO COMMENCE CONSTRUCTION OR ACQUIRE AN INTEREST IN A GENERATION FACILITY. THE ELECTRIC DISTRIBUTION COMPANY'S INTEREST IN THE GENERATION FACILITY IT BUILT OR CONTRACTED TO ACQUIRE SHALL BE NO LARGER THAN NECESSARY TO MEET PEAK DEMAND OF CUSTOMERS SERVED UNDER THIS SUBPARAGRAPH. DURING TIMES WHEN THE CUSTOMER'S DEMAND IS LESS THAN THE ELECTRIC DISTRIBUTION COMPANY'S GENERATION INTEREST, THE ELECTRIC DISTRIBUTION COMPANY MAY SELL EXCESS POWER ON THE WHOLESALE MARKET. AT NO TIME SHALL THE COSTS ASSOCIATED WITH THE GENERATING FACILITY INTERESTS BE INCLUDED IN RATE BASE OR OTHERWISE REFLECTED IN RATES. THE GENERATION

FACILITY INTERESTS SHALL NOT BE COMMISSION-REGULATED ASSETS.

(6) A DEFAULT SERVICE PLAN APPROVED BY THE COMMISSION PRIOR TO THE EFFECTIVE DATE OF THIS SECTION SHALL REMAIN IN EFFECT THROUGH ITS APPROVED TERM. AT ITS SOLE DISCRETION, THE DEFAULT SERVICE PROVIDER MAY PROPOSE AMENDMENTS TO ITS APPROVED PLAN THAT ARE CONSISTENT WITH THIS SECTION, AND THE COMMISSION SHALL ISSUE A DECISION WHETHER TO APPROVE OR DISAPPROVE THE PROPOSED AMENDMENTS WITHIN NINE MONTHS OF THE DATE THAT THE AMENDMENTS ARE FILED. IF THE COMMISSION FAILS TO ISSUE A FINAL ORDER WITHIN NINE MONTHS, THE AMENDMENTS SHALL BE DEEMED TO BE APPROVED AND THE DEFAULT SERVICE PROVIDER MAY IMPLEMENT THE AMENDMENTS AS FILED.

(7) THE DEFAULT SERVICE PROVIDER SHALL OFFER RESIDENTIAL AND SMALL BUSINESS CUSTOMERS A GENERATION SUPPLY SERVICE RATE THAT SHALL CHANGE NO MORE FREQUENTLY THAN ON A QUARTERLY BASIS. ALL DEFAULT SERVICE RATES SHALL BE REVIEWED BY THE COMMISSION TO ENSURE THAT THE COSTS OF PROVIDING SERVICE TO EACH CUSTOMER CLASS ARE NOT SUBSIDIZED BY ANY OTHER CLASS.

(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 TO A CUSTOMER THAT AGREES TO PAY THE COST OF THE SMART METER.

(II) IN THE CONSTRUCTION OF A NEW RESIDENCE OR NEW BUILDING TO BE USED BY A COMMERCIAL CUSTOMER.

(III) IN ACCORDANCE WITH A SCHEDULE OF REPLACEMENT OF FULL DEPRECIATION OF EXISTING METERS.

(3) ELECTRIC DISTRIBUTION COMPANIES SHALL, WITH CUSTOMER CONSENT, MAKE AVAILABLE ELECTRONIC ACCESS TO CUSTOMER METER DATA TO THIRD PARTIES, INCLUDING ELECTRIC GENERATION SUPPLIERS AND PROVIDERS OF CONSERVATION AND LOAN MANAGEMENT SERVICES.

(4) AN ELECTRIC DISTRIBUTION COMPANY SHALL NOT BE PERMITTED TO RECOVER THE COSTS, AS DETERMINED BY THE COMMISSION, OF PROVIDING SMART METER TECHNOLOGY UNDER PARAGRAPH (2).

(5) IN NO EVENT SHALL LOST OR DECREASED REVENUES BY AN ELECTRIC DISTRIBUTION COMPANY DUE TO REDUCED ELECTRICITY CONSUMPTION OR SHIFTING ENERGY DEMAND BE CONSIDERED A COST OF SMART METER TECHNOLOGY.

(6) BY JANUARY 1, 2010, OR AT THE END OF THE APPLICABLE GENERATION RATE CAP PERIOD, WHICHEVER IS LATER, A DEFAULT SERVICE PROVIDER SHALL SUBMIT TO THE COMMISSION ONE OR MORE PROPOSED TIME-OF-USE RATES AND REAL-TIME PRICE PLANS. THE COMMISSION SHALL APPROVE OR MODIFY THE TIME-OF-USE RATES AND REAL-TIME PRICE PLAN WITHIN SIX MONTHS OF SUBMITTAL. THE DEFAULT SERVICE PROVIDER SHALL OFFER THE RATES AND REAL-TIME PRICE PLAN TO ALL RESIDENTIAL AND COMMERCIAL CUSTOMERS THAT HAVE BEEN PROVIDED WITH SMART METER TECHNOLOGY WITHIN 60 DAYS OF INSTALLATION OF THE SMART METER TECHNOLOGY OR COMMISSION APPROVAL OF THE TIME-OF-USE RATES AND REAL-TIME PRICE PLAN, WHICHEVER IS LATER. RESIDENTIAL OR COMMERCIAL CUSTOMERS MAY ELECT TO PARTICIPATE IN TIME-OF-USE RATES OR REAL-TIME

PRICING. THE DEFAULT SERVICE PROVIDER SHALL SUBMIT AN ANNUAL REPORT TO THE COMMISSION ON THE PARTICIPATION IN THE TIME-OF-USE AND REAL-TIME PRICE PROGRAMS AND THE EFFICACY OF THE PROGRAMS IN AFFECTING ENERGY DEMAND AND CONSUMPTION AND THE EFFECT ON WHOLESALE MARKET PRICES.

(7) THE PROVISIONS OF THIS SUBSECTION SHALL NOT APPLY TO AN ELECTRIC DISTRIBUTION COMPANY WITH 100,000 OR FEWER CUSTOMERS.

(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 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.

(4) PROVIDE A MEANS TO OBTAIN REAL-TIME CONSUMPTION INFORMATION FROM A METER SUCH AS AN INSTALLED PORT OR OUTPUT FOR TRANSMITTING METER PULSE DATA EXTERNAL TO THE METER TO BE

USED BY THE CUSTOMER, THE ELECTRIC DISTRIBUTION COMPANY OR A THIRD PARTY ENGAGED BY THE CUSTOMER IN THE ELECTRIC DISTRIBUTION COMPANY.

SECTION 4. TITLE 66 IS AMENDED BY ADDING A SECTION TO READ:

§ 2813. PROCUREMENT OF POWER.

EXCEPT AS PROVIDED UNDER THE ACT OF NOVEMBER 30, 2004 (P.L.1672, NO.213), KNOWN AS THE ALTERNATIVE ENERGY PORTFOLIO STANDARDS ACT, THE COMMISSION MAY NOT ORDER A DEFAULT SERVICE PROVIDER TO PROCURE POWER FROM A SPECIFIC GENERATION SUPPLIER, FROM A SPECIFIC GENERATION FUEL TYPE OR FROM NEW GENERATION ONLY.

SECTION 5. THIS ACT SHALL TAKE EFFECT IN 60 DAYS.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Judith D. Hendin	:	
	:	
V.	:	C-2018-3003324
	:	
Metropolitan Edison Company	:	

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Non-Public Version and Public Version of Brief of Complainant Judith Hendin has been served upon the following persons in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

Via Federal Express

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Tori L. Giesler, Esquire
FirstEnergy Service Company
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Via Federal Express

Administrative Law Judge Joel H. Cheskis
Pennsylvania Public Utility Commission
Office of Administrative Law Judge
400 North Street, 2nd Floor West
Harrisburg, PA 17120

Dated: March 20 2020

s/Joanna A. Waldron
Joanna A. Waldron, Esquire
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