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April 6, 2020

Via Email: rchiavetta@pa.gov

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 Judith Hendin's Reply Brief of Complainant Judith Hendin and the applicable Certificate of Service with regard to the above-captioned matter. We are e-filing the NON PUBLIC and PUBLIC versions of Ms. Hendin's Reply Brief via email in accordance with the posted amended filing procedures due to COVID-19 physical closures. Please note that the NON PUBLIC contains Confidential Information.

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

PUBLIC VERSION – CONFIDENTIAL INFORMATION REDACTED

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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

REPLY BRIEF OF COMPLAINANT JUDITH HENDIN

Dated: April 6, 2020

s/Joanna A. Waldron
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TABLE OF CONTENTS

I. INTRODUCTION 3

II. ARGUMENT 5

A. Met-Ed Misstates the Legal Standard 5

B. Act 129 is Not Mandatory As Met-Ed Contends 9

1. Contrary to Met-Ed's Representations, the Commission Should and Does Consider Relevant Evidence from Other Jurisdictions 9

2. Contrary to Met-Ed's Representations, There Is No Plain Language in Act 129 That Provides a Mandate for Smart Meter Installation 11

3. The General Assembly Considered and Rejected a Smart Meter Mandate ..15

C. Dr. Kracht is Reliable And Offers Direct Medical Evidence that Ms. Hendin Will Suffer Harm 17

1. Met-Ed Mischaracterizes Dr. Kracht's Issuance of the Letter of Medical Necessity 19

2. Dr. Kracht's Testimony and Records Are Probative and Admissible. Evidence Establishing Ms. Hendin's Need For Accommodation 19

D. Judith Hendin's Testimony is Admissible, Reliable, and Reasonably Probative 21

E. Admissibility of Exhibits 24

F. Dr. Davis' Claims that RF from Smart Meters Do Not Cause Thermal or Non-Thermal Biological Effects in People Are Misleading 29

III. CONCLUSION 34

I. INTRODUCTION

Ms. Hendin seeks relief in this proceeding so that she can continue to follow her doctor's prescribed treatment to avoid EMFs, a treatment that Met-Ed wants to render impossible by installing a smart meter at her residence. An analog meter will allow her to continue treatment, and constitutes safe and reasonable service for Ms. Hendin.

Met-Ed's representations on the legal standard do not hold up to scrutiny. Complainants like Ms. Hendin are required to show by a preponderance of the evidence only that she will suffer harm if a smart meter is installed at her residence, not prove to a medical certainty that smart meters induce an immediate biologic response in humans, or to catalogue the particular manifestation of symptoms that an individual will suffer upon exposure to the utilities' facility. In the absence of industry research on smart meter facilities, Ms. Hendin cannot be required to conduct laboratory studies on the adverse short-term and long-term epidemiologic effects of exposure to smart meter facilities in humans. The Commission should recognize a standard based on the Precautionary Principle allowing individual utility consumers to request a medical accommodation from smart meter installation upon a physician's recommendation, past history of symptoms, and medical risk to human health. What Ms. Hendin presents in the proceeding is her need for accommodation, which is based on her treating physician's order to avoid electromagnetic fields ("EMFs"), including smart meters, her past suffering and healing when the UGI meter was removed, her successful avoidance measures, her right to maintain her treatment in her own home, and her analysis of her health risk associated with the proposed smart meter installation aided by her specialized knowledge.

Ms. Hendin's particular need for accommodation is consistent with the smart meter legislation. Act 129 is clear that utilities are not prohibited from providing accommodations to

individual consumers. More importantly, to remain a properly certificated public utility as part of its mandate under 66 Pa.C.S. § 1501, utilities are required to "furnish and maintain adequate, efficient, safe, and reasonable service and facilities" and make "necessary" "repairs, changes, alterations, substitutions, extensions and improvements," "necessary or proper for the accommodation, convenience, and safety of its patrons." 66 Pa.C.S. § 1501. Contrary to Met-Ed's suggestion, the Commission frequently looks to the practices of public utility commissions in other jurisdictions, and it should be no different with smart meter installation.

Accommodations in the form of opt-outs are standard across the industry, and only Pennsylvania appears adamant on mandating smart meters at every residence, regardless of individual consumer medical needs. The General Assembly, however, considered and rejected language providing for a "one hundred percent" installation requirement. Moreover, the alleged smart meter roll out mandate is irreconcilable with other provisions of Act 129 that permit a consumer to opt out of the incentivizing capabilities of the smart meter, a contradiction that makes no rational sense after forced installation.

Ms. Hendin has provided reliable, probative, and admissible evidence to support her complaint. Dr. Kracht's testimony should not be discounted, as Met-Ed suggests, but rather should be given more weight as it shows the first-hand knowledge involved in making a differential diagnosis that is critical to prescribing a successful course of treatment for Ms. Hendin. Ms. Hendin provides a multitude of exhibits that should be admitted to assist in both fact determination, and in questioning the credibility of Met-Ed's witnesses in this proceeding, including Dr. Davis.

Ms. Hendin has shown that Met-Ed's smart meter installation at her residence, given her condition, constitutes unsafe and unreasonable service. The smart meter would be placed within

four feet of Ms. Hendin lives, works and sleeps, rendering it impossible for her to follow her doctor's treatment. She is entitled to an accommodation as part of Met-Ed's electric service, which can easily be accomplished legally and practically by installing an analog meter, as an "alteration" or "substitution" at her residence.

II. ARGUMENT

Part A of this Reply Brief addresses the proper legal standard. In Part B, we reject Met-Ed's claim that smart meter installation is required by law, and explain that in fact, accommodations are required by law. In Part C, we demonstrate the credibility of Dr. Kracht's long-standing, first-hand observations of Ms. Hendin and attendant medical records. Part D addresses the reliability and admissibility of Ms. Hendin's first-hand knowledge and specialized knowledge as an aid to understanding Ms. Hendin's medical accommodation need. Part E addresses Met-Ed's contention that certain exhibits are not admissible. Lastly, Part F examines Dr. Davis' claim that the RF from smart meters do not cause thermal or non-thermal biological effects in people.

A. Met-Ed Misstates the Legal Standard

Met-Ed argues that Ms. Hendin failed to satisfy the burden of proof by proving by a preponderance of the evidence that Met-Ed's proposed smart meter installation constituted unsafe or unreasonable service. Met-Ed Brief at 6. Met-Ed maintains that Ms. Hendin, in seeking an order from the Commission, "has the burden of proof," relying on the Public Utility Code ("Code") at 66 P.S. § 332. The Code does not squarely address the applicable burden of proof other than generally. As Ms. Hendin set forth in her Main Brief, complaints about smart meter installation and necessary medical accommodations warrant application of the

Precautionary Principle,[1] because of the involuntary and ubiquitous nature of the exposure and the fact that the Commission's expertise does not lie in medical diagnoses. Hendin Brief at 13, 16-19, 21.

The Code does not directly address the burden of proof for customer complaints about the new smart meter installations, and other Code provisions suggest the wisdom of placing the burden on the utility when a change is being implemented. Section 332, on which Met-Ed relies, addresses "Procedures in general" and states only that "the proponent of a rule or order has the burden of proof," except as otherwise provided in Section 315 of the Code or in the statute. 66 Pa.C.S. § 332(a). Section 315 does not specifically address an individual consumer challenging the reasonableness or safety of a utility's smart meter deployment. Section 315 addresses Commission-initiated proceedings, and places the burden of proof on the Commission in those instances. *See, e.g.*, 66 P.S. § 3315(b). And where, Section 315 does address non-Commission initiated proceedings, the Code places the burden squarely on the utility. 66 Pa. C.S. § 315(a) (Commission-initiated challenge to reasonableness of rates, either proposed or existing, places the burden of proof on the utility; and, "in any proceedings upon complaint involving any proposed increase in rates, the burden of proof to show that the rate involved is just and reasonable shall be upon the public utility.") *See also*, *Schellhammer v. Pennsylvania Pub. Util. Comm'n*, 1629 A.2d 189, 193 (Pa. Commw. Ct. 1993) (explaining that "[w]here a customer is heard to complain concerning a proposed change in rate, the burden of proof is upon the public utility to show the proposed rate is just and reasonable; where the complaint involves an existing rate, however, the burden falls upon the customer to prove that the charge is no longer

[1] As discussed in Ms. Hendin's Main Brief, the Precautionary Principle can be appropriate to incentivize industry to conduct testing that otherwise might not be conducted. In *North American Coal Corp. v. Commonwealth,* 279 A.2d 356 (Pa. Commw. Ct. 1971), the Commonwealth Court held that, "when recognized scientific tests are available and practical, courts must insist upon their use in presentation." 279 A.2d at 36.

reasonable")(citations omitted)). Accordingly, the Code does not directly address the customer challenge to smart meter installation, but since this is a change initiated by the utility, the burden of proof should lie with the utility to prove that it is safe.

Even if the Commission were to reject the Precautionary Principle, Met-Ed completely fails to explain what the burden of proof entails, and incorrectly cites the appellate standards for "substantial evidence," a standard that is wholly inapplicable here. Met-Ed Brief at p. 5 fn. 3.

The *Lansberry* case explains in detail that "substantial evidence is a standard that is reserved for appellate review."[2] *Samuel J. Lansberry, Inc. v. Pa. P.U.C.*, 578 A.2d 600, 601-602 (Pa. Commw. Ct. 1990). Met-Ed nevertheless conflates "substantial evidence" and "prima facie." Quite inexplicably, Met-Ed relies on *Norfolk and Western Ry. V. Pa. P.U.C*, 413 A.2d 1037, for the standard of a prima facie case, and suggests that the case holds that prima facie means something more than a "mere trace of evidence" or "suspicion of fact;" however, *Norfolk* does not contain any discussion about a "prima facie" case, and no mention whatsoever of a "mere trace of evidence" or "suspicion of a fact."[3] *Id.* (*passim*); Met-Ed Brief at 5. Rather, *Norfolk* explains that substantial evidence is "that quantum of evidence which a reasonable mind might accept as adequate to support a conclusion." *Norfolk* at 1047 (citing *Dutchland Tours, Inc. v. Pa. P.U.C.*, 337 A.2d 922 (Pa. Commw. Ct. 1975)).

After citing the wrong standard, Met-Ed relies on a wholly inapposite case. Met-Ed's authority on the "prima facie" standard is a conditional use application case. *Pa. Bureau of Corrections v. City of Pittsburgh*, 532 A.2d 12, *14 (Pa. 1987). Met-Ed suggests that *Pa. Bureau of Corrections* means that "personal perceptions" cannot constitute evidence in this

---

[2] It is unclear why Met-Ed failed to disclose this distinction as Met-Ed did cite to the *Lansberry* case in its Brief at 5, 6.

[3] Met-Ed relies on the *Norfolk* decision even though the majority of the discussion in *Norfolk* involves the question of preemption and does not explain the prima facie standard.

proceeding. Met-Ed Brief at 5. However, the Pennsylvania Supreme Court in *Pa. Bureau of Corrections* was referring to the type of evidence in a conditional use hearing that is required to rebut a prima facie case, once the applicant has satisfied its burden to show that it meets the standards contained in the zoning ordinance. Clearly, this discussion does not apply to Ms. Hendin in these administrative proceedings where the Commission is bound to consider "all relevant evidence of reasonably probative value." 2 Pa. C.S. § 505. Likewise, the *Hiko* case does not apply here, as it involved a complaint brought by the Commission's Investigation and Enforcement Division and is largely an administrative penalty case. *HIKO Energy LLC v. Pa. P.U.C.*, 209 A.3d 246 (Pa. 2019).

Only the *Waldron* case, which Met-Ed cites, is instructive. The Waldron case recognizes that the Complainant may not be able to produce actual evidence regarding malfunctions of a meter, and must be able to show circumstantial evidence.[4] *Waldron v. Philadelphia Elec. Co.*, Pa. P.U.C. Docket No. C-77100047, 1980 WL 140964 (Mar. 19, 1980); Met-Ed Brief at p. 5. Moreover, the Commission's Waldron rule is specifically based on a Michigan Public Service Commission case: "In order to aid our determination as to whether complainant has established a prima facie case, we adopt the policy of the Michigan Public Service Commission." *Id.* at *2.

---

[4] As explained in Venini:

> [T]he *Waldron* Rule allows a complainant to establish a *prima facie* case in a 'high bill' complaint by showing that the disputed bill is abnormally high when compared to prior usage patterns and his or her pattern of usage has not changed, *or by providing other relevant evidence showing that the disputed bill is unreasonably high*. In evaluating a "high bill" complaint, the Commission may consider such evidence as "the billing history of the account, any change in usage patterns (such as a change in the number of occupants residing in the household or potential energy utilization), *and any other relevant facts or circumstances that come to light during the proceeding*." *Thomas v. PECO Energy Company,* Docket No. C-2010-2187197 (Order entered November 15, 2011) at 5 (quoting *Bennett v. The Peoples Natural Gas Company,* Docket No. C-2009-2122979 (Order entered October 13, 2010).

Venini v. PPL Elec. Util., Pa. P.U.C. Docket No. C-2018-3006469, 2020 WL 585267, at *4 (Jan. 29, 2020).

(citations omitted). The Waldron rule further specifies that the Commission should consider "any other relevant facts or circumstances that come to light during the proceeding." *Id.*

Met-Ed has indicated that the standard Ms. Hendin has to meet is a high bar; however, "[i]t is well established in this Commonwealth that proof by a preponderance of the evidence is the lowest degree of proof recognized in civil judicial proceedings." *Samuel J. Lansberry, Inc. v. Pennsylvania Pub. Util. Comm'n*, 578 A.2d 600, 602 (Pa. Commw. Ct. 1990) (citing *Se–Ling Hosiery, Inc. v. Margulies,* 70 A.2d 854 (Pa. 1950). The Commission should disregard Met-Ed's recitation of the standard of proof based on its failure to cite relevant cases, multiple inconsistencies, and failure to consider fully the Precautionary Principle.

B. Act 129 is Not Mandatory As Met-Ed Contends

1. Contrary to Met-Ed's Representations, the Commission Should and Does Consider Relevant Evidence from Other Jurisdictions

Met-Ed has no support for its claim that the Commission should give little weight to how other jurisdictions have dealt with opt outs. Met-Ed incorrectly cites a number of cases to support its position that the Commission should not consider relevant evidence from other jurisdictions. None of the cases support that position.

First, *Petition of Columbia Gas of Pennsylvania for Approval of its Long-Term Infrastructure Improvement Plan* Docket No P-2012-23382828, 2014 Pa. PUC Lexis 93 at 34-35 (February 25, 2014) is a recitation of Columbia Gas's assertion that the evidence from other jurisdictions *should* be considered, in contravention to the Office of Consumer Advocate arguments.

Second, Met-Ed cites *PMO-III* – but again this case suggests that this Commission *should* look to other jurisdictions: "we [the Commission] have merely based the PA Guidelines (and PA

PAP) on the NY-style models." (citing *PMO II*, Docket No. M-00011468, order entered December 10, 2001).

In the *PMO III*, the Commission clearly considered relevant evidence from New York and used it as a basis for the PA Guidelines. The Commission examined "whether the NY PSC has adopted a particular change for use in NY (or whether other states in the footprint have adopted a particular change)" and "shall give careful consideration to proposed changes that flow from the NY and footprint processes." *PMO III*, 2008 WL 8013884, at *7 (July 17, 2008)(recognizing "[t]he interested entities' subsequent work to develop footprint-wide metrics and remedies reflects the value of collaborative efforts").

Third, *Elder v. Orluck,*[5] on which Met-Ed also relies, does not reject consideration of relevant information from other jurisdictions. While *Elder* does contain a footnote noting that there is no indication from the General Assembly that it was patterning its comparative negligence statute after the specific statute from Wisconsin, the entire case contains a detailed analysis of the statutes from other states.

Met-Ed's position is that these cases suggest that the Commission should not consider evidence from other states; however, these cases show the contrary. The *Elder* case contains an extensive discussion of statutes in other states. Further, in the *PMO III* case cited by Met-Ed, which is more akin to the instant proceeding, a utility requested that the Commission look at the guidelines from New York, and the Commission, in fact, did.

In particular, in areas in which the law is emerging, the Commission considers what is happening in other jurisdictions as eminently relevant. *See, e.g., Crown Castle NG E, LLC v. Pa. P.U.C.*, 188 A.3d 617 (Pa. Commw. Ct. 2018), reversing the Commission, holding:

[5] Note that Met-Ed has cited this as "Orlucky."

> After reviewing the relevant language in the Code, this Court's precedent, the decisions related to the certification of DAS networks by public utility commissions in other jurisdictions, and relevant federal law, we conclude the Commission erred in its interpretation of the Code to exclude DAS network operators from the definition of public utility, and, accordingly, we reverse.

Crown Castle NG E. LLC v. Pennsylvania Pub. Util. Comm'n, 188 A.3d 617, 619 (Pa. Commw. Ct. 2018), *appeal granted,* 200 A.3d 7 (Pa. 2019). In *Crown Castle*, the Commonwealth Court examined in detail the Texas and California Public Utilities Commissions, and relied on the reasoning in those cases as part of the basis to reject the Commission's recent reinterpretation of its position on jurisdiction over DAS providers. *Id.* at 634. (This reasoning is consistent with that in other jurisdictions, which have recognized that the transport services offered by DAS networks are telecommunications services that are properly certificated as public utilities.) Since the effects of EMFs on health is an emerging field, there is all the more reason for the Commission to consider evidence from other jurisdictions, including accommodation or opt out provisions approved by utility commissions themselves.

2. Contrary to Met-Ed's Representations, There Is No Plain Language in Act 129 That Provides a Mandate for Smart Meter Installation.

Met-Ed's argument for not offering any accommodation from a smart meter installation is to claim that it is prohibited from doing so by order of the Commission approving its Smart Meter Deployment Plan. Met-Ed, and its witness, Mr. Ahr relied on the percentages in Met-Ed's Smart Meter Deployment Plan, even though those percentages were prefaced with the word "approximately." The FirstEnergy Companies' Commission-approved Smart Meter Deployment Plan, provides in pertinent part:

> The Full-Scale Deployment Stage will commence upon resolution of all problems encountered during the Solution Validation Stage

> and will continue until all meters are installed on or before December 31, 2022…. At this pace, the Companies expect to install approximately 98.5% of all meters by mid-2019, with the remaining 1.5% of the meters being installed thereafter through December 31, 2022.

St. of Ahr at11:1-20; Exhibit No. JCA-1, at 47. Without considering the plain language of the statute or the its legislative history, Met-Ed reflexively points only to its own opt out plan, which cannot be reconciled with the safety and reasonableness requirements of 66 Pa. C.S. § 1501. When asked in his written testimony, Mr. Ahr stated it was "significant" that the plan referred to 98.5% and 1.5% because "[w]hen added together, those percentages equal 100% of meters. Clearly, this plan requires Met-Ed to install smart meters at all customer service locations." *St. of Ahr* at 11:17-20. Ahr, relied on the installation percentages in Met-Ed's Smart Meter Deployment Plan, suggesting that because the Plan sets out that 100% of meters will be installed by 2022, that smart meter installation is mandatory. However, these percentages are merely the Companies' "expected" rates of installation. Further, they were also prefaced with the word "approximately." The fact that the Commission approved this approximate plan of installation in no way suggests that 100% of smart meters must be installed without consideration of accommodation for medical reasons. One must consider the plain language of 66 Pa. C.S. 1501 and Act 129, such as their safety and reasonableness requirements, along with their legislative history.

The Statutory Construction Act of 1972[6] makes clear that, "Words and phrases shall be construed...according to their common and approved usage." *Id.* § 1903(a), and "[e]very statute [is to] be construed, if possible, to give effect to all its provisions." *Id.* § 1921(a). The Act further provides, "[w]hen the words of a statute are clear and free from all ambiguity, the letter of it is

[6] Statutory Construction Act 1 Pa.C.S.§§ 1501- 1991.

not to be disregarded under the pretext of pursuing its spirit." *Id.* § 1921(b). In the present case, there is no clear wording in either Act 129 or Section 1501 about residents seeking accommodation from smart meters for medical reasons.

The Statutory Construction Act explains, however, that parts of statutes that are in *pari materia,* i.e.*,* statutory parts that relate to the same persons or things, are to be construed together wherever possible. *Id.* § 1932. The Code's Section 1501 and Act 129 both relate to the operation of public utilities providing electric service to consumers, and therefore must be construed together. Section 2807 paragraph (f)(iii) allows residents who've had smart meters installed to voluntarily opt in to get certain rate plans that relate to the data that the smart meter can produce, with the idea being that people will then scale back usage. 66 Pa. C.S. § 2807(f)(5). Act 129 was designed in part to ensure "the health, safety and prosperity of all citizens" by "adopting energy efficiency and conservation measures."[7] Yet Act 129 specifically permits consumers to elect whether to participate in time-of-use rates or real-time pricing.

> 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

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[7] Act 129 amended the Code to fulfill the identified objectives:

> The General Assembly recognizes the following public policy findings and declares that the following objectives of the Commonwealth are served by this act:
>
> (1) 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.
>
> (2) It is in the public interest to adopt energy efficiency and conservation measures and to implement energy procurement requirements designed to ensure that electricity obtained reduces the possibility of electric price instability, promotes economic growth and ensures affordable and available electric service to all residents.
>
> (3) It is in the public interest to expand the use of alternative energy and to explore the feasibility of new sources of alternative energy to provide electric generation in this Commonwealth.

> 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 time-of-use rates and real-time price plan to all customers that have been provided with smart meter technology under paragraph (2)(iii)**. **Residential or commercial customers may elect to participate in time-of-use rates or real-time pricing.**

66 Pa.C.S. § 2807(f)(5)(emphasis added).

It is not a reasonable reading of the statute that residents would be forced to accept a smart meter, under the guise of energy efficiency and price stability, and at the same time be given the option of whether to use the capabilities of the smart meter designed to encourage energy conservation, i.e., the data that a smart meter can provide. It is impossible to reconcile the Commission's interpretation of Act 129 as a smart meter mandate with making use of the smart meter incentives optional. Under statutory construction principles, in *ratio legis* would require the Commission to ascertain and give effect to the primary purpose of the statute. To force smart meters, without accommodation, on every resident, while at the same time allowing residents to opt out of the energy efficiency capabilities that smart meters offer and ignore the available data makes no sense.

Further, the current reading of the statute as a smart meter mandate creates an inefficient and unreasonable situation with respect to individuals seeking an accommodation. Because no provision for an accommodation is allowed, hundreds of individuals are forced to exhaust the administrative remedy by filing a complaint with the Commission. This creates an expensive and time-consuming procedure in which no individual is permitted an accommodation. The number of individuals who have sought this accommodation appears relatively small compared

to the thousands of smart meter installations that have occurred across the Commonwealth.[8] It would be far more reasonable to permit the few individuals who need such medical accommodation to be allowed it.

Medical certificates are accepted under other circumstances under the Commission's regulations; one need only look to the recent regulations on emergency medical certifications to envision how the Commission might implement a sufficiently rigorous medical necessity program.[9]

3. The General Assembly Considered and Rejected a Smart Meter Mandate

In the absence of clear wording in a statute, one must attempt to determine the intent of the General Assembly.

Intent may be discerned from legislative history. The legislative history of House Bill 2200, which became Act 129, proves that a mandate was considered and rejected by the General Assembly. Printer's No. 3218 of HB 2200 contained an explicit reference that "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." HB 2200, PN 3218 version stated:

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[8] First Energy reported 2,014,356 smart meter installations (of which 552,368 installations were by Met-Ed), 104 formal complaints, and 55 informal complaints for 2018. *See St. of Ahr*, Exhibit JA-1 at p. 46; Table 2.2 (indicating over 2,014,356 smart meter installations for First Energy, with 552,368 installed by Met-Ed); *see also* Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company for Approval of *their Smart Meter Deployment Plans*: Docket Nos. M-2013-2341990; M-2013-2341991; M-2013-2341993; M-2013-2341994. (indicating 104 formal complaints and 55 informal complaints across First Energy Companies in reporting period).

[9] In response to the General Assembly's 2014 Responsible Utility Customer Protection Act (Act 155), which expanded the allowable signatories for emergency medical certificates to licensed physicians, nurses, and physician's assistants (among other things), the Commission issued a notice of proposed rulemaking for the regulations governing medical certificates which Final notice includes data from 2015–2017 on the percentages of individuals submitting a medical necessity certificate compared to overall residential users. *See Final Rulemaking Order*, 49 Pa. B. 2815; 2844-2845 (June 1, 2019) (discussing, among other items, medical certificate, and 52 Pa. Code 56.111).

> 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 the 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.**

House Bill 2200 PN. 3218, (16:9-18), as amended on second consideration, (February 11, 2008). (emphasis added). That explicit mandate remained on the third consideration, as shown on PN 3233.[10] The mandate was ultimately removed from HB2200, PN 4429, and was replaced with language stating that meters shall be furnished "In accordance with a schedule of replacement of full depreciation of existing meters," which removed the mandate:

> (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.**

HB 2200, PN. 4429, Reported as Amended Sept. 23, 2008 at 37:27-30; 38:1-4. (emphasis added). The one hundred percent mandate language was never reinserted, and the final version of HB2200, as adopted, modifies the depreciation schedule to a 15-year schedule:

> (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.**

[10] House Bill 2200 PN. 3218 (16:9-18), as amended on second consideration (February 11, 2008).

66 Pa.C.S. §2807(f)(2) (emphasis added). As such, it is clear that the General Assembly rejected the idea of a smart meter mandate.

C. Dr. Kracht is Reliable And Offers Direct Medical Evidence that Ms. Hendin Will Suffer Harm

Met-Ed claims that Dr. Kracht is not reliable. However, Met-Ed offers no basis or citations to support their argument that his testimony should be discounted. Dr. Kracht is the treating physician and has worked with Ms. Hendin for nearly ten years prior to, and nearly ten years since providing a letter of medical necessity with respect to another utility. Evidence that is rationally based on personal knowledge, such as a perception of the witness, and that is helpful to a clear understanding of the proceedings, is admissible.

Under Rule 701, the typical evidence that is permitted must be rationally based on the perception of the witness, and, in the simplest terms is something that the witness has "seen, heard, felt, tasted, smelled, or done." *Lewis v. Mellor,* 393 A.2d 941, 946 (Pa. Super. 1978); *see also, Workmen's Compensation Appeal Board v. Bethlehem Mines Corp.*, 349 A.2d 529, 531 (Pa. Commw. Ct. 1975). Dr. Kracht, by his very nature as treating physician, provides that evidence, evidence specifically based on his observations.

The *Gibson*[11] case cited by Met-Ed does not apply here. In *Gibson*, testimony from a co-worker of the party in question (Decedent) was rejected at the appellate level because the coworker had only "limited knowledge of Decedent's working conditions," and therefore his testimony could not support a finding of longstanding and continuous asbestos exposure. Moreover, the court in *Gibson* specifically cited the "lack of records state[ing] that he had spoken of asbestos exposure to any treating physician." *Id.* at 946. In contrast, Dr. Kracht has extensive knowledge of Ms. Hendin's medical issues, having treated her for nearly 20 years. In

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[11] *Gibson v. W.C.A.B.*, 861 A.2d 938, 947 (Pa. 2004)

addition, the medical records kept by Dr. Kracht are clear and contemporaneous evidence of his direct observations. Met-Ed did not file an objection to the introduction of Ms. Hendin's medical records upon provision of them in January 2020.[12]

Dr. Kracht has expertise in this field. He is a Board Certified physician in both Family Medicine and Integrative Medicine (*St. of Kracht* at 5); he has been an active member of the American Academy of Environmental Medicine since 1986; and he is well acquainted with the management of syndromes related to electromagnetic radiation. *Id.* at 24-26.

Ms. Hendin provides the Commission with the most critical evidence information – testimony from her treating physician, Dr. Kracht. Dr. Kracht has personal knowledge of Ms. Hendin and her condition, as well as her past experiences with EMF exposure, and the results of following the prescribed treatment to limit EMF exposure.

Even assuming that the ALJ accepts Dr. Israel's assertion that the origin, or idiopathic nature of Ms. Hendin's condition has no known cause, she has shown that her symptoms exist, that they coincided with the installation of a smart meter, and that without following her physician's prescribed avoidance, she suffers from a variety of symptoms which at best, reduce her quality of life, and, at worst, reduce her life. Introduction of EMF-emitting utility facilities on her home will cause her to suffer and be unable to follow her physician's treatment. Ms. Hendin's own first-hand testimony establishes that Met-Ed's installation of the smart meter will cause her to experience symptoms, and that the negative health effects establish her claim that Met-Ed's installation will violate its duty to provide safe and reasonable service under Section 1501.

[12] *See December 19, 2019 Transcript* at 111:15-20 (objections due within ten days of receipt).

1. Met-Ed Mischaracterizes Dr. Kracht's Issuance of the Letter of Medical Necessity

Dr. Kracht's longstanding relationship with Ms. Hendin as her treating physician informed his decision to issue the letter to UGI to remove the smart meter from Ms. Hendin's residence because she was experiencing many symptoms. [REDACTED]. Dr. Kracht explained that had he not seen her for several years, he would have wanted to see her again. *Id.* at 117:25; 118:1-4. Because Dr. Kracht is the longtime treating physician of Ms. Hendin, he was able to review all the testing and medical records, and draft the requested letter of medical necessity. *Id.* at 118:4-8; 19-21.

2. Dr. Kracht's Testimony and Records Are Probative and Admissible Evidence Establishing Ms. Hendin's Need For Accommodation

Ms. Hendin's symptoms and medical evaluations by Dr. Kracht are relevant here because Dr. Kracht shared consistent, first-hand knowledge of Ms. Hendin's symptoms and the abatement of those symptoms after removal of the UGI meter. In short, in early 2012, UGI installed the smart meter without Ms. Hendin's knowledge[13]; [REDACTED]. Exhibit 10, at 1. Dr. Kracht began differential diagnoses to determine the causes of the symptoms.

[13] *Direct Examination of Hendin, December 19, 2019 Transcript* at 69:12-14. ("I did not know where they [the physical symptoms] were coming from. I knew nothing about radiofrequencies at the time.")

No specific causations were found. In August of 2012, Ms. Hendin learned that a smart meter had been installed. *St. of Hendin*, at 96-101. UGI would only remove the meter with a letter from her physician, which she requested, and which Dr. Kracht provided. *St. of Hendin* at *Exhibit 2*.

Ms. Hendin's symptoms required Dr. Kracht to engage in a differential diagnosis, ruling out other potential causes of her symptoms: "…[W]hen someone presents with symptoms, what are all the different possible medical conditions that contribute or, say, cause those symptoms; and, from a medical standpoint, we have to think through what are those conditions that could also explain her symptoms and how can we test them and, as we use in medical jargon, rule them out or rule them in." *Direct Testimony of Kracht, December 19, 2019 Transcript* at 86:23-25; 87:1-4.

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Dr. Kracht's treatment plan of avoidance was clear, in

D. Judith Hendin's Testimony is Admissible, Reliable, and Reasonably Probative

Ms. Hendin meets all the requirements to offer admissible, reliable, and probative evidence in this case. She has the formal education, and practical experience, and direct sensory experience. *Gibson* at 948. It goes without saying that forcing an individual to be subjected to emissions from a smart meter and its related facilities is an unconscionable invasion of the right to bodily autonomy; however, Ms. Hendin is uniquely positioned to offer this Commission

information regarding the effect of forced exposure to smart meters.

Met-Ed's reliance on *Gibson*[15] as precedent that Ms. Hendin cannot offer evidence in this administrative setting is unfounded. First, the statements disallowed in *Gibson* involved a party who had no first-hand knowledge of a decedent's situation. Here, there is no decedent, and Ms. Hendin is offering her direct testimony on what she perceived.[16] Ms. Hendin's testimony is not on "specialized topics," as Met-Ed claims, but rather on the *relevant* topics to the smart meters claim: her own health, her own treatment, and her own symptoms, experiences and responses to radiofrequency exposure and treatment. Further, Ms. Hendin's testimony is helpful for understanding. Kracht's testimony and eventual differential diagnosis, as well as treatment in this proceeding.

Second, Ms. Hendin has specialized knowledge that is helpful to the trier of fact here, based on her training and many years of practical experience as a somatic therapist – a field in which she works directly with patients to address a broad spectrum of conditions, including illnesses and trauma,[17] as well as to understand the importance of the physical body. Ms. Hendin is qualified to offer specialized knowledge in the form of expert testimony, given her specialized training as a somatic therapist. Ms. Hendin's testimony cannot be disregarded, and must be considered reliable, probative and admissible, given both her first-hand knowledge and her relevant specialized knowledge. Furthermore, in the absence of the application of the

[15] *Gibson v. WCA.B.,* 861 A.2d 938, 947 (Pa. 2004).

[16] Specifically, Rule 701 provides as follows:

> If a witness is not testifying as an expert, testimony in the form of an opinion is limited to one that is: (a) rationally based on the witness's perception; (b) helpful to clearly understanding the witness's testimony or to determining a fact in issue; and (c) not based on scientific, technical, or other specialized knowledge within the scope of R 702.

[17] See example list of symptoms addressed, as described peer reviewed study co-authored by Ms. Hendin in 2014, Hendin, J. (2014). The Development of Conscious Body Symptom Work, and its Efficacy in Client Outcomes. In "Academic/Peer-reviewed," *Voice Dialogue International.* California, attached as Attachment 2.

Precautionary Principle, Ms. Hendin faces the Herculean task of proving causation, based on an impossible toxic tort style causation standard, in a proceeding in which the utility has all of the relevant information.

Ms. Hendin graduated Phi Beta Kappa from the University of Chicago. She holds a Ph.D., and the degree was granted by conferring credit for, among other credits, a "fellowship with the International Honors Program traveling around the world with Gregory Bateson, one of the great thinkers of our time, [who developed] cybernetics or [systems] thinking.… [She also] had two years of graduate work at York University in Toronto", among many other credentials. *Cross Examination of Hendin, December 19, 2019 Transcript* at 64:24-25; 65:1-25; 66:1-9. After the discussion, Judge Cheskis observed, "[H]er qualifications and academic credentials speak for themselves." *Id.* at 66:12-13. Met-Ed was afforded the opportunity to explore her credentials at the in-person hearing and did so. *Hendin Cross Examination, December 19, 2019*, at 63: 15-25; 64:1-25; 65: 1-25; 66:1-14.

As a professional Somatic Therapist, Ms. Hendin has been in private practice for 30 years. She has presented at national and international conferences, and has taught extensively in the United States and Europe. While her emphasis is on clinical work and teaching, she has also published studies over the past decades.[18]

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[18] SELECTED BIBLIOGRAPHY

Hendin, J. (2014). The Development of Conscious Body Symptom Work, and its Efficacy in Client Outcomes. In "Academic/Peer-reviewed," *Voice Dialogue International.* California.
Peer-reviewed, published analysis of 10 years of client outcomes.

Hendin, J. (2012). Conscious body and the energy medicine of selves. In D. Hoffman (Ed.), *The Voice Dialogue Anthology: Explorations of the Psychology of Selves and the Aware Ego Process*. Albion, California: Delos.
Chapter in book.

Hendin, J. (2009). The self behind the symptom: The energies of inner selves and body symptoms. *USA Body Psychotherapy Journal*, *8,* (2), 21-30. New York: United States Association for Body Psychotherapy.
Peer-reviewed, published study.

Ms. Hendin's prior experience informs this proceeding. After a smart meter was put on her residence, Ms. Hendin suffered symptoms she has never had before or since. Dr. Kracht explained that there is "no known diagnostic test" for electromagnetic sensitivity, but that he had used a differential diagnosis method. *St. of Kracht*, at 4:50; *Direct Examination of Dr. Kracht, December 19, 2019 Transcript* at 87:13-21. Ms. Hendin's symptoms are documented in exquisite detail in the medical records. She reported symptoms after the smart meter was installed in early 2012,[19] and long before she requested the letter of medical necessity from Dr. Kracht in August of 2012. The symptoms only appeared after the smart meter was installed, and all disappeared after the smart meter was removed. Not coincidentally, these symptoms are also the same as reported by thousands of people in epidemiological studies on the effects of RFs, and were reported in the Lamech study, which was specifically about smart meters.[20]

E. Admissibility of Exhibits

Met-Ed alleges that it properly objected to Ms. Hendin's exhibits and that they are not admissible. Ms. Hendin's exhibits can be grouped as follows for discussion of why Met-Ed's blanket evaluation is wrong: Group I, Medical records[21]; Group II, Met-Ed's statements[22]; Group III, Studies cited by Dr. Israel[23]; Group IV, WHO (World Health Organization) and IARC

Hendin, J. (2008). The self behind the symptom: How shadow voices heal us. Easton, PA: Conscious Body & Voice Dialogue Institute.

Book about the dynamics of inner selves, illness, and healing.

Hendin, J., & Csikszentmihalyi, M. (1975). Measuring the flow experience in rock dancing. In Csikszentmihalyi, *Beyond Boredom and Anxiety*. San Francisco: Jossey-Bass.

Chapter in book; Ms. Hendin was on the original research team of this landmark study of the phenomenon of autotelic activities, or activities people do for enjoyment; the results have been recognized and used widely to this day.

[19] Kracht Exhibits 2, 3, 5

[20] Exhibit X11.

[21] Exhibits Hendin-1, 1, 9, 10, 11, 12, 13, 14, 15.

[22] Exhibit 32.

[23] Exhibits X3, X5, X14.

(International Agency for Research on Cancer) documents[24]; Group V, Studies showing deleterious health effects of radio frequency radiation[25]; Group VI, Legislation passed to protect citizens from electromagnetic frequency radiation[26]; Group VII, BioInitiative Reports[27]; Group VIII, Letters and Resolutions[28]; Group IX, Smart meter facts[29]; Group X, Credibility cross examination documents.[30] While Ms. Hendin had anticipated relying on and/or cross-examining witnesses on the exhibits, she does not seek admission of Exhibit 35, 36, and Exhibit X8.[31]

First, Met-Ed did not object to the introduction of Group I, Ms. Hendin's medical records, upon provision of them in January. The *Walker/Chapman* rule provides that simple hearsay evidence may support an agency's finding of fact so long as the hearsay is admitted into the record without objection and is corroborated by competent evidence in the record. *See Walker v. Unemployment Compensation Board of Review,* 367 A.2d 366, 370 (Pa. Commw. Ct. 1976) (*Walker*); *see also Chapman v. Unemployment Compensation Board of Review,* 20 A.3d 603, n. 8 (Pa. Commw. Ct. 2011).

Group II, Exhibit 32, is Met-Ed's own fact sheet regarding standard installation for smart meters and distances from living spaces. As a statement against interest, this document is not hearsay and is admissible. In this case, an accommodation for Ms. Hendin is required for her residence, because Met-Ed proposed to install the smart meter much

[24] Exhibits 23, 25, 27, 28, 29, X12.
[25] Exhibits 3, 4, 38, 39, X6, X7, X8, X9, X10, X15, X16.
[26] Exhibit 37, also in Exhibit 38.
[27] Exhibits X17, X18, X19.
[28] Exhibits 6, 24, 26, 30, 31, 40, X1, X2, X4, X13.
[29] Exhibits 5, 7, 33, 34, 35, 36, X11.
[30] Exhibit 41.
[31] Under separate cover, Ms. Hendin has withdrawn her request for admission of certain exhibits: Exhibit 36 (Politico article), Exhibit 35 (Carpenter article), and Exhibit X8 (Cherry), via the pending Motion for Admission of Late-Filed Exhibits.

closer than Met-Ed's own standard recommends, and Met-Ed is not offering any alternative not funded entirely by the consumer, Ms. Hendin.

Group III Exhibits are complete copies of Exhibits cited by Dr. Israel himself, which are proper for cross examination. Group IV are comprised of certain WHO (World Health Organization) and IARC (International Agency for Research on Cancer) documents, which show that Dr. Israel's citations and interpretations of these were incorrect.

Group V are studies showing deleterious health effects of radio frequency radiation, to establish that Dr. Israel's claim that there is consensus that smart meters are safe is not consensus at all, and is nonsense.

Group VII, the BioInitiative Reports,[32] are documents which Dr. Israel discussed in his written statement and in his testimony, claiming that the 2012 BioInitiative Report "is not an objective and balanced reflection of the current state of scientific knowledge." *Exhibit MI-4 p.1*. However, the BioInitiative Reports actually contain nearly every study[33] that Dr. Israel cited in his Rebuttal Statement. Furthermore, Dr. Israel himself discussed the BioInitiative Report 2012 in his Rebuttal Statement. The BioInitiative Reports are properly admitted on cross examination to demonstrate the all-inclusive objectivity of these reports. Set forth below are the studies cited by Dr. Israel, and their location in the BioInitiative Report:

- Hietanen 2002 *Statement of Israel* at n 3.

2012 BioInitiative Report, chapter on "Evidence for Effects on Neurology and Behavior," p. 15; p. 496 of pdf

- Tahvanainen 2004 *Id.* at n. 7.

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[32] Exhibits X17, X18, and X19.

[33] The two most recent studies cited by Dr. Israel (Eltiti 2018 and Verrender 2018 *St. of Israel,* at n. 6) were too new to make it into the Report. One study by Takahashi *(Id.* at n. 1) was not included, although other studies by Takahashi were included. About Eltiti 2015 (*Id.* at n. 5): Though this particular study is not in the Report, two other studies by Eltiti are included in the 2019 Report, in the chapter on "Neurological effects of nonionizing electromagnetic fields," pages 48 and 159, with notations that both studies showed no effects.

2017 Report, "List of research publications (1990-2017) on the biological effects of radiofrequency and cell phone radiation," p. 858

- Nam 2006 *Id.*

2012 Report, chapter on "Evidence for Disruption by the Modulating Signal," p. 37; p. 1138 of pdf

- Nam 2009 *Id.*

2017 Report, "List of research publications (1990-2017) on the biological effects of radiofrequency and cell phone radiation," p. 632

- Ogawa 2009 *Id.* at n. 1.

2012 Report, chapter on "Neurological Effects of Non-Ionizing Electromagnetic Fields," p. 82; p. 665 of pdf

- Sommer 2009 *Id.* at n. 1.

2012 Report, chapter on "Electromagnetic Field Exposure Effects (ELF-EMF and RFR) on Fertility and Reproduction," p. 37; p. 1253 of pdf

- Rubin 2010 *Id.* at n. 2

2019 Report, "Electrohypersensitivity Abstracts," p. 41.

- Choi 2014 *Id.* at n. 7.

2017 Report, "List of research publications (1990-2017) on the biological effects of radiofrequency and cell phone radiation," p. 155

As such, the BioInitiative Reports considered the very studies on which Dr. Israel relied to form his opinion.

Groups VI and VIII were circulated and were provided to parties so that Dr. Israel's claims about "consensus" for the basis of his opinions could be tested on cross examination. Exhibits 38, 39 and 40 are compilations of citations to journal articles with individual authors noted, not individual journal articles. With cross examination of Dr. Israel being interrupted and limited, Ms. Hendin offered the appendices as part of her rebuttal evidence and "to conduct such cross-examination as may be required for a full and true disclosure of the facts." 66 Pa.C.S.§ 332.[34]

[34] Section 332 provides:

> Submission of evidence.--Every party is entitled to present his case or defense by oral or documentary evidence, to submit rebuttal evidence and to conduct such cross-examination as may be required for a full and true disclosure of the facts. The commission may, by rule, adopt procedures for the submission of all or part of the evidence in written form.

66Pa.C.S.§ 332(c).

The amount of evidence available suggests that mandating smart meters installations without a provision for a medical accommodation, is at best, unreasonable, and at worst, unsafe. Met-Ed's witnesses appear to have failed to consider the extent of the evidence. For example, Exhibit 40, Resolutions Appendix, demonstrates 20 years of worldwide concern by doctors and scientists about the effects of EMFs on health. Ms. Hendin moved for the admission of several exhibits that were included specifically to show the fallacies and weaknesses of specific claims made by Dr. Israel. For example, Exhibit 38, Children's Appendix, shows legislation, scientific research, and worldwide resolutions about the terrible effects that radio frequencies have on children; as a pediatrician, Dr. Israel should know this and should have addressed this. Ms. Hendin likewise offered Exhibit 39, Animal Appendix, to counter and test Dr. Israel's claim that animals are not affected by electromagnetic frequencies.

Met-Ed objects to the admissibility of certain exhibits on the basis of relevance, claiming that they do not deal with RF fields from AMI meters, or with RF fields from the AMI meters that Met-Ed is using, and that they do not directly deal with human health. Met-Ed's claims must be rejected because their own experts relied on studies involving cell phones. Dr. Israel, for example conceded that "I have not conducted any experiments with radiofrequency fields" at all. *Cross Examination of Israel*, *December 20, 2019 Transcript* at 218:19-21. Further, Dr. Davis, Met-Ed's expert, discussed radiofrequencies from cell phones at length, rendering studies involving RFs from cell phones relevant. The specific methodology employed in a study does not affect its admissibility. For example, Exhibit X11, Lamech, is a peer-reviewed published study from 2014. "Evidence is relevant if it tends to make a fact at issue more or less probable." *Martin v. Soblotney,* 466 A.2d 1022, 1024 (Pa. 1983). "Relevance is a threshold consideration in

determining admissibility of evidence." *Sprague v. Walter*, 656 A.2d 890, 907 (citation omitted) (Pa. Super. 1995).

Lastly, a document not prepared by the person testifying is not automatically rendered inadmissible as long as the authenticating witness provides sufficient information relating to the preparation and maintenance of the record to justify a presumption of reliability. *Guthrie v. Workmen's Compensation Appeals Bd.,* 854 A.2 653, 658 (Pa. Commw. Ct. 2004). A document may be authenticated by direct proof or by circumstantial evidence. *Zuk v. Zuk,* 55 A.3d 102 (Pa.Super.2012).

Accordingly, Met-Ed's objections were not proper and must be rejected. Ms. Hendin's exhibits are admissible.

F. Dr. Davis' Claims that RFs from Smart Meters Do Not Cause Thermal or Non-Thermal Biological Effects in People Are Misleading

Dr. Davis' testimony confirms that there has been a lack of independent or industry-backed credible human health safety testing, and no consideration of the effects (adverse or otherwise) that consumers will experience. Met-Ed relies on the FCC guidelines and the American National Standards Institute guidelines. *St. of Davis* at 10:20-21; 11:1-15.

The FCC guidelines are based on the National Council on Radiation Protection research, conducted prior to 1996. Dr. Davis conceded that the guidelines are "[b]ased on scientific studies those expert organizations analyzed." *Id.* at 11:9-10. The FCC expressed specific concern over its guidelines in the case of continuous exposure: "Of far greater significance, we believe, is the case of a consumer-product without any identifiable usage pattern, where continuous exposure would have to be assumed and time-averaging would not be relevant." *See In the Matter of Guidelines Evaluating the Environmental Effects of Radiofrequency Radiation*, FCC Docket ET-93-62 (Report and Order, Aug. 1, 1996) at 14.

Time-averaging of a smart meter's sharp emissions, which can occur thousands of times a day, fails to capture the impact it can have on the body receiving this kind of daily exposure for decades. The numbers in Dr. Davis' exhibits are inconsistent in this regard. In his Exhibit CD-2, he states that the time-averaged power density at 1 meter distance from the Itron smart meter is 0.00000965 mW/cm^2. In Exhibit CD-3, he gives the peak power density of an Itron's emission at 1 meter distance as 0.00926 mW/cm^2. Then in Exhibits CD-4 and CD-5 he states the Itron's power density at 1 meter is 0.0000223 mW/cm^2, which doesn't match with either of the prior numbers he relies on at 1 meter and is not otherwise explained.

Moreover, in the instance of the exposure Met-Ed plans for Ms. Hendin, Dr. Davis has not visited the residence. Dr. Davis' opinions are based on assumptions about the exposure that Ms. Hendin will experience, and not on first-hand observations of the proposed placement of the meter. Dr. Davis's participation in the various committees ended nearly 20 years ago,[35] and since 2016 he has been testifying on behalf of utilities in favor of forced installation of smart meters. Dr. Davis' credibility and the credibility of his opinions, must be considered in light of his industry bias toward those with vested interests in having wireless technology approved, and in this case, mandated for installation at individual customer's residences.

Dr. Davis relies on FCC guidelines to suggest that smart meters are safe. *Cross Examination of Davis, December 19, 2019 Transcript* at 176:15-25; 177:1-13. It is important to note that the FCC's numbers are just that: guidelines. They are not statutes, and, as the FCC concedes, they in no way guarantee safety. In the absence of any specific regulatory limits for

[35] Met-Ed's Response to Interrogatory No. 14, Attachment B, indicates that Davis was a member of the IEEE Committee on Man and Radiation (COMAR) (1996-2002), and Chair of the COMAR Sub-Committee on RF and Microwaves (1997-2002).

smart meters, or specific testing conducted by smart meter industry, Met-Ed relies solely on the FCC guidelines as "proof" of safety.

The FCC, however, "recognizes that it is not a health and safety agency" and instead must rely on other agencies "who can interpret the biological research necessary to assess the health impact of RF emissions and determine what exposure levels can be considered safe for humans." *See, Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies; Targeted Changes to the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields* ¶ 153, p. 72 FCC Docket No. ET- 19-226 (Resolution of Notice of Inquiry, Second Report and Order, NOPR, and Memorandum and Op. and Order) (Adopted: November 27, 2019).

Yet the FCC guidelines are not adequate to protect individuals from harm from wireless devices. As stated by Dr. Davis himself, the FCC guidelines do not address smart meters; rather, they look at the "time-averaged" value of radiation following a 30-minute exposure. *St. of Davis* at Exhibit CD-3. The guidelines do not take into account the fact that smart meters send out frequent sharp emissions, which have a vastly different effect on the human body. Resulting harm from these sharp emissions has been shown in the science literature at very low RF intensities, and at least one mechanism – activation of the voltage gated calcium channels, which can lead to free radical creation and DNA breakage – has been identified. Dr. Davis, despite all his credentials, does not acknowledge this mechanism. His assertion that "There is no reliable scientific basis … to conclude that the very low levels of radio frequency fields from Met-Ed's Itron meters can or will cause any adverse thermal or non-thermal biological effects in people", (*St. of Davis*, at 15:17-20) is unfounded, and easily contradicted by the large body of scientific

evidence encompassed in the BioInitiative Report and the collective findings of hundreds of credentialed scientists. At best, Dr. Davis does not address the contemporary findings, and at worst, his clear bias has caused him to ignore them.

Dr. Davis' conclusions are based on the FCC guidelines, which lack any specific reference to smart meters and the unique placement of those meters on individual's homes. Met-Ed has failed to address the actual exposure based on the distances that individuals with smart meters on their homes will experience. There is no standard location for placement; hence this Commission must consider the circumstances in each particular case separately.

Met-Ed failed to conduct any long-term testing of its smart meters. Ms. Hendin cannot be faulted for the fact that no such testing was conducted or required. Ms. Hendin does not wish to participate in this unethical large-scale experiment on humanity when there is ample scientific information available to the Commission and the public that shows harmful effects at RF levels that are orders of magnitude below that of the FCC guidelines, and no evidence showing the long-term effects of the continuous exposure or the cumulative effect of the combined exposure an individual utility customer will experience.

Furthermore, Dr. Davis cannot justify his conclusion that because other common wireless devices emit more RF radiation than smart meters, subjecting Ms. Hendin to smart meter radiation is justified. Ms. Hendin can elect *not* to use other RF devices – and has – but has no choice but to be subjected to smart meter emissions under Met-Ed's current mandate. In fact, after reading a large body of science literature and learning about the hazards of microwave radiation from wireless devices, Ms. Hendin has removed all such devices from her home and avoids them when outside of the home to every practical extent. Dr. Davis concedes that the radio frequency field exposure Ms. Hendin will experience from a smart meter is much stronger

than exposure to her cell phone. In discussing Ms. Hendin's cell phone, which Dr. Davis admits it is in the "mid range" that puts out "irregular frequency power" and is "a rather old cell phone."[36] Dr. Davis concluded that after just two months in which she would "sit near her smart meter," she will have the same radio frequency field exposure as she experiences in a whole year from her cell phone.[37] Because Ms. Hendin will be near her smart meter daily, because she lives and works and sleeps in her residence less than 20 feet from her smart meter, and cooks in her kitchen daily only 4 feet from the proposed meter location, Dr. Davis' predictions reveal the impact of Ms. Hendin's exposure. Without an accommodation, Ms. Hendin will experience six years' worth of cell phone exposure in one year at her residence. Over the 15-year useful life of the smart meter, Ms. Hendin could be exposed to up to the equivalent of 90 years' worth of her cell phone exposure, which Dr. Davis assumed to be a low starting number at one minute a day. Expertise is not required to understand that the smart meter exposure is undoubtedly stronger than cell phone exposure, and at Ms. Hendin's residence, will result in inescapable high levels of exposure.

In this case, forcing Ms. Hendin to endure smart meter emissions at her home would not be "just a little bit more" exposure; rather, it is the introduction of a harmful substance that she has deliberately removed from her environment on her doctor's advice. Dr. Davis's conclusion

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[36] *Direct Examination of Dr. Davis, December 19, 2019 Transcript* at 172:25; 173:1-2.

[37] Dr. Davis testified as follows:

> Q. What if Ms. Hendin used her cell phone for less than ten minutes, say one minute a day on average, how would that compare to the exposure to radiofrequency fields of the Smart Meter being used by Met-Ed?
>
> A. I think if that was the case and she only used her cell phone for one minute a day, she'd still have to sit near her Smart Meter for about two months to get the same exposure that she's getting in a year from her cell phone.

Id. at 174:21-25; 175:1-4. Davis' further testimony on this subject highlights his inconsistencies, where estimated if Ms. Hendin used her cell phone for ten minutes a day "she would have to sit near her Smart Meter for many, many years to get the same radiofrequency exposure that she was getting from her cell phone." Dr. Davis did not explain how a factor of 10 (one minute per day versus ten minutes of cell phone exposure) results in going from "two months" to "many, many years," rather than to 20 months, a little over a year and a half.

about what common wireless devices emit is not a fair comparison, and is essentially an "apples to oranges" comparison. Dr. Davis does not consider the many differing parameters such as frequency range, how information is encoded on the signals, or the intensity of the communication transmissions – each and all of which affects the degree of harm possible. Dr. Davis' argument is therefore without merit.

CONCLUSION

We may disagree as to the best way to regulate smart meters, and what incentives there should be for industry compliance, and industry funded testing to facilitate safety. We need not answer those policy questions in this proceeding. At a fundamental level, all the parties must agree that due process and reason (even maybe efficiency) require that utilities be required to accommodate those persons who have been prescribed EMF avoidance.

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 the installation of a smart meter facility that emits RFs, and that the meter can only be installed at a location within four feet of her main living space. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] She controls her condition by limiting her exposure. The utility unreasonably insists that she cannot have electricity unless she accepts the RF-emitting smart meter facility. 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, which constitutes unreasonable and unsafe service to Ms. Hendin in violation of the Code.

Respectfully Submitted,

Dated: April 6, 2020

s/Joanna A. Waldron
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PUBLIC VERSION – CONFIDENTIAL INFORMATION REDACTED

ATTACHMENT 1

Hendin, J. (2014). The Development of Conscious Body Symptom Work, and its Efficacy in Client Outcomes. In "Academic/Peer-reviewed," *Voice Dialogue International.* California. Available for download at https://voicedialogueinternational.com/reading-peer-reviews.htm

Three tables from Ms. Hendin's analysis to demonstrate symptoms reviewed as Somatic Therapist:

What Body Symptoms and Diseases Were Addressed?	
Type	Number of Occurrences
Symptoms and Diseases:	
Allergy	1
(foods)	
Arthritis	1
Barrett's esophagus disease	1
Cancer	12
(adenocarcinoma; breast-4; testicular-2; leukemia; lymphoma; ovarian; pre-cancerous: blood; cervical)	
Cardiovascular	5
(Churg-Strauss syndrome; heart palpitations-2; polycythemia; vasculitis)	
Cold/Flu	3
Cough	1
Cyst	4
(dermoid; fatty lipoma; ovarian-2)	
Dental	2
(tooth decay; toothache)	
Diabetes	1
Difficulty breathing	3
Difficulty walking	3
Dizziness	1
Ears	2
(hearing loss; otitis externa/swimmer's ear)	
Eyes	1
(flashing lights)	
Fatigue	8
Female conditions	8
(bleeding after sex; infertility-2; menstrual cycle-2; pregnancy; premature menopause; vaginal soreness)	
Fibromyalgia	2
Hair loss	1
HIV	3
Hyperparathyroid	1
Infection	2
(urinary tract; yeast)	
Insomnia	7

Intestinal distress (ache-2; constipation; colitis; cramps; diarrhea-5; digestive pain-4; nausea)	15
Involuntary motion (restless leg; tremor; twitch)	3
Kinesthetic problems (general malaise-2; numbness-2; “sensation of thickness”-2; soreness-4; stiffness; tender to touch-2; throbbing; tightness-5)	19
Male sexual dysfunction	1
Musculoskeletal (broken bone-2; muscle atrophy; repetitive stress syndrome; scoliosis)	5
Nervous system (demyalineating neuropathy; neuroma)	2
Pain (arm-2; back-11; chest; hand; head; headache-5; hip-2; joints; knee; lateral torso-2; migraine-3; neck; shoulder-3; testicles; thigh; thumb; whole body; whole leg; wrist-2)	41
Parkinson’s	1
Polio	1
Schleroderma	1
Sinus	2
Skin (bump; eczema-2; herpes-3; hives; itch; pimples; plantar wart; psoriasis; rash-5)	16
Swelling	1
Throat (“lump”; partial closure)	2
Thyroiditis	1
Weight	1
Bodily Experiences Associated with Certain Feelings, Behaviors, and Events:	
Abuse in childhood	3
Accident (auto-3)	3
Dermatillomania/face-picking	1
Dissociation	2
Food issues	3
Mood issues (body dysmorphic disorder; depression-7; depression with panic attack-2; fear of flying; manic depression; panic attack-4; PTSD)	17
Substance abuse (alcohol only; drugs and alcohol-3)	4
Total	218

NOTE: Of the original 218 symptoms, the number was reduced to 144 because several clients worked with more than one symptom. One symptom was chosen for each person: the symptom the client presented first or emphasized most.

How Did Symptoms Respond?		
Symptom Change	Number of Symptoms	% of 144 symptoms
Disappearance of Symptom	91	63%
Improvement	32	22%
No Change	21	15%
Total:	144	100%

In the Symptoms That Disappeared, How Many Sessions Did It Take?		
Number of Sessions to Symptom Disappearance	Number of Symptoms	% of 91 Symptoms That Disappeared
1	42	46%
2 – 3	10	11%
4 – 5	11	12%
6 – 10	13	14%
Number of Sessions Unclear in Records	15	17%
Total:	91	100%

NOTE: As the depth of this work has developed since these studies were first conducted, a larger percentage of my clients' symptoms have led to unresolved childhood trauma. Some of these cases have required months of sessions, and in a few cases, years, for the body symptom to resolve.

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 Reply Brief of Complainant Judith Hendin (Public and Non-Public Versions) 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 Email & Federal Express

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Dated: April 6, 2020

s/Joanna A. Waldron
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