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May 23, 2016

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Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, Second Floor
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MAY 23 2016

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

RE: Susan Kreider v. PECO Energy Company
Docket No. C-2015-2469655

Dear Ms. Chiavetta:

Enclosed for filing with the Commission is the *Reply Brief of PECO Energy Company*.

Very truly yours,

A handwritten signature in black ink, appearing to read "Ward L. Smith".

Ward L. Smith
Counsel for PECO Energy Company

WS/ab
Enclosure

cc: Christopher P. Pell, ALJ
Darlene D. Heep, ALJ
Certificate of Service

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

MAY 23 2016

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Susan Kreider

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:
:

v.

C-2015-2469655

PECO Energy Company

Reply Brief of PECO Energy Company

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I. Introduction

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

On May 2, 2016, Complainant Susan Kreider filed her Brief in this proceeding (the "Kreider Brief"). Pursuant to 52 Pa. Code §5.502(c)(2) and the March 9, 2016 Briefing Order in this proceeding, PECO Energy Company ("PECO") hereby files its Reply Brief addressing the matters that were raised in the Kreider Brief.

The Kreider Brief makes arguments under eleven separate headings. PECO's Reply Brief responds to each of the sections in the order they appear in the Kreider Brief.

Before proceeding with a point-by-point reply, PECO would like to note that the scope of this proceeding was limited to four issues identified in Your Honors June 3, 2015 Prehearing Order and reiterated at hearing. As ALJ Heep noted at hearing, that Ms. Kreider has claimed:

(1) that the Respondent was threatening to terminate her service or has already terminated her service;

(2) that the Respondent would not respect her notice of self-help or offer any alternative, including whether PECO has provided or is providing unreasonable service given Complainant's allegations of "deleterious health symptoms" caused by the Smart Meter;

(3) that there are incorrect charges on her bill; and

(4) that the Respondent did not seem to be accepting her monthly readings.

As identified in response to the specific arguments below, the Kreider Brief goes well beyond those four issues.

In addition, PECO notes that the Kreider Brief cites and discusses numerous documents and sources that are not a part of the record evidence in this proceeding. In the initial section of its argument, PECO explains why such citations and arguments must be completely disregarded when deciding this case.

II. Argument

A. The Kreider Brief was based almost entirely on information that was newly introduced in the Kreider Brief itself, and which was not admitted into the record in this proceeding. The Commission cannot and should not consider such information in deciding this case.

PECO understands that Ms. Kreider is appearing *pro se*, and that some evidentiary latitude is typically granted to *pro se* complainants who are unfamiliar with the Commission's procedural rules. Admitting into evidence the material newly introduced in the Kreider Brief, however, is unwarranted in this circumstance. And doing so would necessitate giving PECO an opportunity to cross-examine the witness sponsoring the testimony and to submit rebuttal evidence.

Under the Commission's regulations for formal proceedings, absent special circumstances, the evidentiary record closes at the end of the evidentiary hearing. 52 Pa. Code §5.431 states:

§ 5.431. Close of the record.

(a) The record will be closed at the conclusion of the hearing unless otherwise directed by the presiding officer or the Commission.

(b) After the record is closed, additional matter may not be relied upon or accepted into the record unless allowed for good cause shown by the presiding officer or the Commission upon motion.

Subpart (a) of this rule is used to allow the introduction of evidence that is specifically identified at hearing, but which is not available in the hearing room. For example, this section allows the record to be kept open to allow a party to answer an on-the-record data request, or to provide a late-filed exhibit when the need for it emerges during testimony. The overriding theme of subpart (a) is that the parties have the opportunity, at the hearing itself, to address what additional evidence or exhibits will later be entered in the record. Importantly, that at-the-hearing discussion gives each party the opportunity to object to the admission of additional evidence – and potentially to cross-examine on the offered evidence or to offer their own testimony at hearing to rebut the evidence that will later be admitted under this rule.

That did not happen in this hearing – the information that is provided in the Kreider Brief was not identified at hearing, no request was made to keep the record open for its late submittal, and no ruling was made that will record would be kept open. Therefore, (1) PECO did not have the opportunity to object to the admission of documents now relied upon by Ms. Kreider, (2) PECO did not have the opportunity to cross-examine a witness sponsoring the documents, and (3) PECO did not have the opportunity to submit additional evidence to rebut those documents. Consequently, subpart (a) of this rule does not provide a basis to allow the Kreider Brief to introduce additional evidence after the close of the record.

Subpart (b) of 5.431 allows the presiding officer or the Commission to re-open the record, upon motion, if good cause is shown. In turn, “good cause” to reopen the record is determined by reference to §5.571 of the Commission’s regulations (Reopening prior to final decision), which states that the record may be reopened to take additional evidence “if there is

reason to believe that conditions of fact or law have so changed as to require, or that the public interest requires, the reopening of the record.”

Ms. Kreider has not alleged that there has been a change to the law or facts since the close of the record in this proceeding. Indeed, most of the information and documents provided predate the date of hearing – and where they postdate the date of hearing, they could reasonably have been sought and obtained before the hearing. The new information in the Kreider Brief therefore does not qualify for admission under subpart (b) of the reopener rule.

While PECO understands that Ms. Kreider is appearing *pro se*, PECO has basic due process rights to object to the admission of evidence, to cross-examine on that evidence, and to offer contrary evidence. PECO would be denied those basic due process rights if the new information in the Kreider Brief were admitted into the evidentiary record in this proceeding. PECO therefore respectfully requests that Your Honors issue a ruling that the non-record information contained in the Kreider Brief is not admitted as part of the record evidence in this proceeding.

B. Reply to the individual arguments made in the Kreider Brief

1. The record evidence does not support the Kreider Brief’s claim that the Arizona Department of Health report is “deeply flawed”

The Kreider Brief claims (p. 1) that the Arizona State Health Department’s electric meter report is “deeply flawed.”

First, PECO would like to briefly revisit the record evidence on the Arizona State Department of Health. At hearing, Dr. Mark Israel stated, Tr. 166, that he found the report of

the Arizona Health Department to be helpful in forming his opinions in this proceeding. He later noted, Tr. 173-74, the conclusion of the Arizona Department of Health report:

Exposure to electric meters, . . . AMI or AMR, is not likely to harm the health of the public. This conclusion was reached because, one, none of the detected power densities exceeded the FCC standard of 6 watts per meter square. This standard was determined based on thermal present whole body heat stress and excessive localized tissue heating. Second, available government assessments and scientific literature indicated that there is no consistent or convincing evidences to support a cause and effect relationship related to the exposures to RF frequency 902 to 930 megahertz used by the Smart Meters.

That is the entirety of the record evidence on the Arizona Health Department report.

There is nothing in that record evidence that says that there are any flaws in that report.

The Kreider Brief refers to two documents that were submitted to the Arizona Corporation Commission in its Generic Investigation into Smart Meters, and which attacked the report of the Arizona Department of Health. First is a 2014 statement from Martin Blanc, Ph.D., that appears to argue that electromagnetic fields ("EMF") can cause non-thermal effects. The second is a reference to a 2014 "34-page expose" submitted to the Arizona Corporation Commission by "Sedona, AZ activist Warren Woodward."

If Ms. Kreider had offered this information at hearing, and asked to admit it into the record, PECO would have objected on all or some of the following grounds:

- Ms. Kreider testified as a lay witness, not as an expert. Therefore, pursuant to Rule of Evidence 701(c), she is not allowed to offer an opinion that is based on scientific, technical, or other specialized knowledge;
- Ms. Kreider testified as a lay witness, not as an expert. Therefore, even assuming that she would be allowed to offer her lay opinion in violation of Rule 701(c), pursuant to Rule of Evidence 703 and 705, she cannot describe the facts or data that underlie that opinion because only experts may describe the external documents that helped to form their expert opinion.

- The statements made by Dr. Blanc and Mr. Woodward were not made by them while testifying in the current proceeding and are being offered to prove the truth of the matters asserted therein. They are therefore inadmissible hearsay under Rules of Evidence 801 and 802.
- Mr. Woodward is characterized in the Kreider Brief as a "Sedona AZ activist." No expert witness in this proceeding testified that they would rely upon the writings of an activist in forming their expert opinion or that experts in their field typically rely upon the writings of activists to form their opinion. The information is thus inadmissible under Rule of Evidence 703.

If these documents (or testimony based upon them) had been admitted over PECO's objections, PECO would have cross-examined Ms. Kreider on numerous matters related to the basis for the authors' opinions, the design of any studies referred to therein, and other matters. PECO would also have inquired of its witnesses whether they are familiar with statements by Dr. Blanc and Mr. Woodward, and whether the information provided by them in fact demonstrates any flaws in the Arizona Department of Health Report. However, because this information was not brought up at hearing, PECO did not have the opportunity to pursue any of those lines of objection or inquiry.

With that said, there is sufficient record evidence to dismiss the sole substantive citation in this section of the Kreider Brief. The reference to Dr. Blanc appears to be a discussion of non-thermal effects. Dr. Israel testified, Tr. 200, that "There have been no adverse health effects shown for non-thermal intensities of EMF or RF [radio frequencies]." Dr. Davis testified, Tr. 148, that: "The only mechanism that's been accepted is the thermal mechanism. There's no acceptance of these so-called [non]-thermal mechanisms because there's no mechanism for them to occur."

In sum, there is no basis in the record evidence to conclude that the Arizona Department of Health report is "deeply flawed."

2. The record evidence and the Commission's regulations do not support the view that "nothing uncalibrates an analog meter."

The Kreider Brief's second argument is that "[n]othing uncalibrates an analog meter." This argument generally goes to the broader question of whether the Sangamo analog meter that Ms. Kreider bought from the internet can accurately provide meter data to the PECO system.

Again, we begin analysis of this argument with a review of the record evidence on this issue, which comes from the testimony of Glenn Pritchard. He testified, Tr. 105-106, that in order to ensure that a meter accurately measures and records the customer's usage, the meter must go through a series of procedures and tests, including "first article testing," which thoroughly tests the meters and their functionality, sample testing of the meters to be deployed and, critically, integration with PECO's meter data management system ("MDMS") and the customer information system ("CIMS"). Mr. Pritchard further testified, Tr. 108-109, that the Sangamo meter had not gone through any of those processes and thus, the meter has not been tested sufficiently to determine that it is an accurate meter installation on the PECO system.¹

That is the entirety of the record evidence on testing and calibration of Ms. Kreider's Sangamo meter for accuracy. There is nothing in that record evidence to show it was tested for accuracy or that it had gone through first article testing, sample testing, or integration with the PECO MDMS or CIMS systems.

¹ Ms. Kreider was also asked whether the Sangamo meter had been calibrated for accuracy before installation. She did not directly answer that question, but stated that the meter had been manufactured one month before installation. Tr. 19. Mr. Pritchard later testified that Sangamo meters were last manufactured in 1975. Tr. 107.

The Kreider Brief's argument on this issue is based solely on two non-record pieces of information. First, it refers to a personal communication to Ms. Kreider from "Jerry Day, a television/film producer and personal rights and freedom crusader" that states "nothing un-calibrates an analog meter." Second, the Kreider Brief provides what are purportedly the results of an accuracy test done on Ms. Kreider's Sangamo meter.

If Ms. Kreider had offered this information at hearing, and asked to admit it into the record, PECO would have objected on some or all of the following grounds:

- The statements made by Mr. Day, and the purported meter test documents, were not made by him while testifying in the current proceeding and are being offered to prove the truth of the matters asserted therein. They are therefore inadmissible hearsay under Rules of Evidence 801 and 802.
- Mr. Day is characterized in the Kreider Brief as a "television/film producer and personal rights and freedom crusader." No expert witness in this proceeding testified that they would rely on such personal communication from a personal rights and freedom crusader in forming their expert opinion or that experts in their field typically rely upon such communications to form their opinion. The information is thus inadmissible under Rule of Evidence 703.

If these documents (or testimony based upon them) had been admitted at hearing over PECO's objections, PECO would have cross-examined Ms. Kreider on numerous matters related to the basis for the authors' opinions. These questions would have included how Mr. Day conforms his opinion that "nothing un-calibrates an analog meter" with the Commission's regulations requiring periodic testing of meters, whether the purported accuracy test of the Sangamo meter meets the Commission testing protocols and whether the Sangamo meter had been subjected to first article testing, sample testing, and integration with the PECO MDMS and CIMS systems.

With that said, there is sufficient information in the Commission's regulations and in the record evidence to dismiss the new information provided in this section of the Kreider Brief.

Since the 1940s, the Commission's regulations, 52 Pa. Code §57.20, have required the periodic testing of installed watt-hour meters. That regulation alone is enough to rebut the view of Mr. Day that nothing un-calibrates an analog meter. If his view were correct, there would be no need for this regulation.² As to the purported meter test data, the record evidence shows that a meter must be tested and calibrated for accuracy – and that it also must undergo first article testing, sample testing, and integration into the MDMS and CIMS systems. Even if the purported Sangamo meter test is accepted at face value, it still falls far short of accomplishing those other steps – steps that Mr. Pritchard testified are necessary in order to have the meter accurately record usage on the PECO system.

Ultimately, this argument comes back to the question of whether it is allowable for a customer to remove the PECO-installed meter and replace it with a customer-provisioned meter. Ms. Kreider continues to take the position that, as long as her Sangamo meter can register usage with accuracy that she believes to be reasonable given her testing of the meter, she is allowed to use it as part of the PECO system. As discussed at length in PECO's Main Brief, that is simply not the case.

In sum, there is no basis in the record evidence to conclude that "nothing un-calibrates an analog meter." More importantly, even if one accepts that the Sangamo meter is accurate, the record evidence is clear that it still cannot be used on the PECO system.

² PECO notes that the requirements of §57.20 are placed on the utility, not the customer. Thus, even if the Sangamo meter has been tested by Ms. Kreider or her agents, it is still not allowable on the system because it has not been tested, approved, etc., by PECO.

3. The Landis + Gyr AMI meter has been tested for compliance with UL standards.

The Kreider Brief next argues that the “FlexNet Model deployed on my house May 23, 2013 is not UL certified.” PECO notes that the issue of UL certification is not a part of the four issues that ALJ Heep designated as being the scope of this proceeding.

The confusion here is that PECO is not installing a FlexNet meter – it is installing a Landis + Gyr meter with a FlexNet communication module. The Landis + Gyr meter was tested for compliance with Underwriters Laboratory (“UL”) standards. The FlexNet communication module is regulated by the FCC.

As with the prior issues raised in the Kreider Brief, it is best to begin with a review of the record evidence. Glenn Pritchard testified with regard to UL certification at page 107, lines 8-15 of the transcript, where the following colloquy occurred:

Q. Are these meters tested for compliance within underwriters laboratory standards?

Mr. Pritchard: Yes, they are.

Q. And has this meter met that compliance?

Mr. Pritchard: Which meter?

Q. I'm sorry, the AMI meter?

Mr. Pritchard: The AMI meter that PECO is using, yes, have – are compliant.

On page 126 of the transcript, lines 11-13, Mr. Pritchard testified that the meter that will be installed at the Kreider residence is a “Landis + Gyr Focus Meter.”

That is the entirety of the record evidence with respect to the meter and UL standards. The record evidence clearly demonstrates that the Landis + Gyr meter has been tested for compliance with UL standards.

The Kreider Brief quotes an extra-record email from James E. Herman, Customer Service Account Specialist, which states in relevant part that: "I do not have a record for a company called FlexNet for any utility meter. "

If Ms. Kreider had offered this information at hearing, and asked to admit it into the record, PECO would have objected on some or all of the following grounds:

- The statements made by Mr. Herman were not made by him while testifying in the current proceeding, and are being offered to prove the truth of the matters asserted therein. They are therefore inadmissible hearsay under Rules of Evidence 801 and 802.

If that document (or testimony based on it) had been allowed over PECO's objections, PECO would have cross-examined on whether Ms. Kreider inquired about the UL status of the Landis + Gyr meter. It also would have elicited testimony from Mr. Pritchard to eliminate Ms. Kreider's confusion as to which parts of the meter assembly have been tested for compliance with UL standards, and which are under the jurisdiction of the FCC.

In sum, the record evidence demonstrates that the Landis + Gyr meter has been tested for compliance with UL standards, and that, in her extra-record communications with Mr. Herman, Ms. Kreider simply asked about the wrong component of the meter assembly.

4. The record evidence does not show that the Landis + Gyr meter is associated with an increased incidence of fires

The Kreider Brief next alleges (pp. 3-5) that smart meters have been associated with increased incidence of fires. PECO notes that the issue of fires is not a part of the four issues that ALJ Heep designated as being the scope of this proceeding.

PECO again begins with a review of the record evidence on this issue. Mr. Pritchard testified about this issue, stating, Tr. 120, lines 1-9:³

Q. When the roll out of deployment began in 2010, isn't it true that a lot of the meters were taken down and had to be replaced because of fire hazards?

Mr. Pritchard: We changed from one meter supplier to another meter supplier.

Q. But isn't it true that some of them had to be taken off the house by PECO and reinstalled with another safer meter?

Mr. Pritchard: It was another meter type.

Q. Isn't it true that there's plastic on the back of the Smart Meters and three other ways by which arcing can occur with the Smart Meters contributing to fires?

Mr. Pritchard: That has not been determined.

It should be noted that the Kreider Brief (p. 4) has one passage that directly addresses this testimony. It claims that: "Analog meters have a metal alloy backplate, glass and metal; smart meter backplates are comprised of cheap plastic. PECO's expert grid engineer Mr. Pritchard denied knowledge of this."

That is an inaccurate characterization of the testimony. Mr. Pritchard did not "deny knowledge" of how smart meters are constructed. He stated that it has not been determined that plastic backs and the "three other ways by which arcing can occur" are causes of smart meter fires. That is very different than "denying knowledge" of how the meters are constructed.

The remainder of this section of the Kreider Brief is comprised of non-record information that can be grouped into two categories. First, there is information attributed to "Thiesen, 2016," that attempts to establish the four purported ways by which arcing is claimed

³ A word search of the transcript for "fire" shows that Ms. Kreider only used the word "fire" when she stated that the electrician who changed her meter "was familiar with another case let's just say that a fire resulted." Tr. 19. The only other time the issue was raised was during cross-examination of Mr. Pritchard, as set forth in the main text.

to occur. Second, there are quotes from Philadelphia Inquirer columnist Andrew Maykuth in 2012, noting that PECO stopped installing meters, switched meter manufacturers, and then re-initiated installation.

The reference to "Theisen, 2016" appears to be a reference to Brian Theisen, a Canadian smart meter activist who prepares and posts videos on the internet. If Ms. Kreider had presented information from Mr. Theisen (or Mr. Maykuth) at hearing, PECO would have objected on all or some of the following grounds:

- Ms. Kreider testified as a lay witness, not as an expert. Therefore, pursuant to Rule of Evidence 701(c), she is not allowed to offer an opinion that is based on scientific, technical, or other specialized knowledge – for example, she would not be allowed to state her opinion that there are four sources of arcing.
- Ms. Kreider testified as a lay witness, not as an expert. Therefore, even assuming that she would be allowed to offer her lay opinion in violation of Rule 701(c), pursuant to Rule of Evidence 703 and 705, she cannot describe the facts or data that underlie that opinion because only experts may describe the external documents that helped to form their expert opinion.
- The statements made by Mr. Theisen and Mr. Maykuth were not made by them while testifying in the current proceeding and are being offered to prove the truth of the matters asserted therein. They are therefore inadmissible hearsay under Rules of Evidence 801 and 802.
- Mr. Theisen is a Canadian smart meter activist. No expert witness in this proceeding testified that they would rely upon the writings of an activist in forming their expert opinion or that experts in their field typically rely upon the writings of activists to form their opinion. The information is thus inadmissible under Rule of Evidence 703.

If these documents (or testimony based upon them) had been admitted over PECO's objections, PECO would have cross-examined Ms. Kreider on numerous matters related to the basis for the authors' opinions. These questions would have included the basis of Mr. Theisen's metering expertise and whether Mr. Theisen's opinions are based upon the meter technology

currently being used by PECO (as opposed to the meter technology that it switched from in 2012).

With that said, there is sufficient information in the record evidence to dismiss the new information provided in this section of the Kreider Brief. The Theisen information should simply be understood as an attempt by Ms. Kreider to demonstrate that smart meters arc because of plastic backs “and three other reasons”; Mr. Pritchard already testified “that has not been determined.” As to the Maykuth articles, if they are taken at face value they simply affirm Mr. Pritchard’s testimony that, PECO began deployment, then stopped AMI installations for a period of time, then chose a new meter manufacturer, and then began a new deployment with the new technology.

5. Ms. Kreider is being properly billed, notwithstanding her smart refrigerator

This section of the Kreider Brief is a variation on Ms. Kreider’s overarching view that she is allowed to replace the PECO AMI meter with an analog meter of her choosing – and that PECO is required to accept readings that she takes from her analog meter and calls in to the Company. In this iteration of that argument, she is particularly concerned that, because she installed a Smart Refrigerator shortly before she removed PECO’s meter and replaced it with an analog meter that she purchased on the internet, she should be seeing larger savings on her bills.

This general argument is addressed at length in PECO’s Main Brief (pp. 30-32), which demonstrates that PECO has no obligation to accept readings from Ms. Kreider’s analog meter, and that her bills are being issued on an estimated basis in compliance with the Commission’s

regulations. PECO primarily relies on its Main Brief on this issue, but would like to briefly underscore that, while customers can call in the reading (or send in a notecard with the reading) from a *PECO-owned and –installed meter*, there is no provision to allow a customer to call in readings *from a customer-owned and –installed meter* because those meters have not been integrated into the PECO MDMS and CIMS systems. See PECO Main Brief, p. 31. It is also worth repeating that, even taking Ms. Kreider’s analog meter readings as accurate, PECO’s estimated bills are less than \$3.00 per month different than Ms. Kreider’s readings. PECO Main Brief, pp. 31-32. This entire argument is thus inconsequential in the context of the larger issue, which is that Ms. Kreider does not have the right to replace the PECO meter with a meter of her own choosing.

Ms. Kreider adds one additional argument to this section of her brief that was not discussed during the hearing. She notes (p. 6) that she believes that it would be relatively easy to write code that would create a “primitive database” to allow her to call in the readings from her analog meter, and asks “How do States allowing for ‘Opt Outs’ manage this feat?”

The answer, of course, is that PECO is cannot maintain a separate “primitive database” to keep the metering and billing data of a select group of customers who opt out of smart meters. Mr. Pritchard testified that, in order for PECO to be able to perform its utility functions for these customers, the data must be integrated into PECO’s MDMS and CIMS systems – and such integration is not a matter that can be done lightly, or using a separate “primitive database.”

As to how this is accomplished in states with an opt out, it is PECO’s understanding that no utility will accept meter data from a non-utility meter. From reviewing reports of the public

filings and rate cases in those states it appears that the utilities in opt out states have been authorized to integrate utility-owned non-smart meters into their equivalents of the MDMS and CIMS systems, with the costs of that integration and secondary system passed on to the population of opt-out customers, or to the customer base as a whole, or split between them. In the case of Pennsylvania, however, the option to integrate non-smart meters into the MDMS and CIMS system is not legally available to PECO because opt out is not available. Put most simply, the General Assembly decided *not to have* that secondary, redundant system for an opt out population. PECO therefore does not have the functionality to accept meter data from non-smart meters – especially those that are not owned by it and which are not integrated into its MDMS and CIMS systems.

6. Issues with costs responsibility for the service line

This section of the Kreider Brief has three paragraphs. In the first paragraph, Ms. Kreider appears to present a defense for locking her meter board with a padlock to which she keeps the key. PECO addressed these actions in Section IV of its Main Brief (pp. 24-27), where it demonstrated that removing the PECO AMI meter and padlocking the meter board violates multiple parts of PECO's tariff, and warrants termination of Ms. Kreider's service.

The second paragraph of this section notes that PECO has not accepted return of its AMI. That is correct. The AMI meter needs to be installed at the Kreider residence, and it should remain there until installation is achieved.

The third paragraph of this section states that placing the meter board on a pole across the street would cost between \$10-12 thousand dollars. PECO simply notes that it has offered,

and continues to offer, customers (including Ms. Kreider) the option to relocate the meter socket to other locations on their property at their cost. PECO would then extend its service facilities, if necessary, to the new point of delivery, also at the customer's cost. Presumably that could be done by Ms. Kreider for less than the \$10-12 thousand estimate for relocation across the street. At hearing, Ms. Kreider was adamant that she is not interested in any relocation option, but that option remains available to her.

7. The fact that "maximum emissions are almost impossible for government to regulate" is consistent with PECO's testimony that radio frequency fields from the AMI are much smaller than the fields people encounter in everyday life.

This section of the Kreider Brief claims that "maximum emissions for a person to receive are almost impossible for Government to regulate." The Kreider Brief then refers to extra-record information from the United Kingdom to the effect that there are many non-regulated cell towers in the UK, and to a website known as "antennasearch" that reportedly shows that, within 4 miles of the Kreider residence, there are 88 tower structures and 895 antenna locations.

All of this information is extra-record, and should be excluded on that account. With that said, it is all entirely consistent with the testimony of Dr. Chris Davis, especially Exhibit CD-3, which shows that radio frequency fields from the AMI meter are very small compared to other sources of radio frequency fields that are encountered in everyday life. Just as Ms. Kreider points out that there are a lot of towers and antennas in her neighborhood, Dr. Davis's Exhibit CD-3 shows that background radio frequency exposure from UHF TV transmissions is 320 times more than average daily exposure to an AMI. PECO respectfully submits that both

parties now appear to be of the view that there are significant sources of radiofrequency exposure in everyday life – a position that is consistent with Dr. Davis’s testimony that Ms. Kreider’s radio frequency exposure will not be materially increased by the AMI meter.

8. Response to “Microwaves are the preferred method of communication”

Although this section of the Kreider Brief is titled “Microwaves are the preferred method of communication,” the section is primarily a list of extra-record internet documents that make claims about radio frequency exposure and health. The sources discussed in this section include the 34-page “expose” written by Sedona, AZ activist William Woodward; internet videos prepared by Canadian activist Brian Theisen; and a rambling “Talk prepared by Barrie Trower for the King of Botswana” that begins with the line: “Debriefing spies during The Cold War extended my military education into the full diversity of stealth microwave warfare and communication systems.” (The references to entities such as the International Commission on Non-Ionizing Radiation Protection and the Health Council of the Netherlands in this section of the Kreider Brief appear to be excerpts taken from the Trower “Talk for the King of Botswana” rather than citations to the primary sources.)

If Ms. Kreider had offered this material at hearing, PECO would have objected on all or some of the following grounds:

- Ms. Kreider testified as a lay witness, not as an expert. Therefore, pursuant to Rule of Evidence 701(c), she is not allowed to offer an opinion that is based on scientific, technical, or other specialized knowledge;
- Ms. Kreider testified as a lay witness, not as an expert. Therefore, even assuming that she would be allowed to offer her lay opinion in violation of Rule 701(c), pursuant to Rule of Evidence 703 and 705, she cannot describe the facts or data that

underlie that opinion because only experts may describe the external documents that helped to form their expert opinion.

- The statements made by Mr. Woodward, Mr. Theisen, Mr. Trower, Mr. Powell and others were not made by them while testifying in the current proceeding and are being offered to prove the truth of the matters asserted therein. They are therefore inadmissible hearsay under Rules of Evidence 801 and 802.
- Mr. Woodward is characterized in the Kreider Brief as a "Sedona AZ activist;" Mr. Theisen is a Canadian activist; the publications of Mr. Trower and Mr. Powell were not published in peer-reviewed journals. No expert witness in this proceeding testified that they would rely upon the writings of an activist or non-peer reviewed articles in forming their expert opinion or that experts in their field typically rely upon the writings of activists or non-peer reviewed articles to form their opinion. The information is thus inadmissible under Rule of Evidence 703.

If these documents (or testimony based upon them) had been admitted over PECO's objections, PECO would have cross-examined Ms. Kreider on numerous matters related to the basis for the authors' opinions, the design of any studies referred to therein, and other matters. PECO would also have inquired of its witnesses whether they are familiar with the information contained within these documents, and whether the information provided by them in fact causes them to change any portion of their opinion or testimony. However, because this information was not brought up at hearing, PECO did not have the opportunity to pursue any of those lines of objection or inquiry.

One further matter in this section deserves quick comment. At the bottom of page 8, Ms. Kreider notes that Dr. Israel testified that radio frequency exposure from an AMI meter is like: "A feather dropping on your head every hour." In fact, however, it was Dr. Davis – an eminent physicist – who first made the feather analogy. Tr. 151. Dr. Israel later stated, Tr. 201-02, that he concurred with Dr. Davis's view.

Ms. Kreider then recounts that, when she told about the feather analogy over the dinner table, it was met by her friends with much eye-rolling and blank looks, and that “One of the eye-rollers, a research scientist, said that a physicist would never make such an analogy between EMF and feathers!”

This exchange just underscores the danger of relying on extra-record evidence that has not been subject to objection, cross-examination, and rebuttal testimony.

9. There is no record evidence to support the view that PECO’s experts presented “biased literature review”

The import of this section of the Kreider Brief appears to be a claim that PECO’s experts are “corporate experts” and therefore “may present biased literature review.”

The qualifications of PECO’s experts are set out at length in PECO’s Main Brief. Suffice it to say that these are scientists at the top of their profession, they teach students at major universities, run research labs, and in the case of Dr. Israel he continues an active medical and medical consulting practice. There is no evidence in the record that they are biased or presented a biased literature review.

This section of the Kreider Brief contains a few unwarranted and unhelpful *ad hominem* attacks,⁴ but primarily it relies upon Mr. Trower’s “Talk for the King of Botswana” and Arizona activist William Woodward’s 34-page expose, as well as materials cited in both of those papers. Rather than repeat the problems with that extra-record information, PECO simply adopts its

⁴ “Exelon Council Ward Smith, Esq. was so unfamiliar with EHS that he struggled with pronunciation.” “Microwave apologist Dr. Israel feigned humanitarianism . . .”

response to Section 8 (“Microwaves are the preferred form of communication”) as its response to this section of the Kreider Brief.

10. The extra-record evidence on “pulses” and “mesh” transmissions makes it clear that Ms. Kreider’s concerns and testimony are based upon a system that is completely different than the system that PECO is using.

This section of the Kreider Brief appears to be making two points. First, it claims that the PECO AMI system uses radio frequency “pulses”, and that these are particularly harmful. Second, it claims that PECO uses a “mesh” system that results in 190,000 transmissions per meter per day. All of this argument is supported solely by extra-record information that Ms. Kreider obtained from a Mr. Ronald Powell related to the Pacific Gas & Electric Smart Meter system.

The record evidence on pulses in this proceeding is limited. Ms. Kreider indicated, Tr. 67, that she had read somewhere that smart meters “pulse” as many as 190,000 times a day, and that “it’s something about the pulsing that your body can’t adjust to.” She later asked Dr. Davis, Tr. 149-50: “But isn’t it true that your body can’t really adjust to the pulsing of an AMI meter?” to which he responded: “Well I don’t accept that the body recognizes the RF [radio frequency] at all.”

As to the number of transmissions per meter, per day, Mr. Pritchard testified, Tr. 101-02, that PECO’s AMI meters transmit 10 times per day on average, and can transmit a maximum of 96 times per day. In other words, the record evidence is clear that the PECO system transmits with a periodicity that is far below the 190,000 times per day periodicity that concerns Ms. Kreider.

A word search for the word “mesh” in the transcript reveals that it was not used by any person during the hearing. But a review of the extra-record materials from Mr. Powell reveals the core of Ms. Kreider’s confusion. Ms. Kreider, and the activists with whom she has been corresponding, are operating on the silent, unspoken, *and completely wrong assumption* that PECO is operating a mesh system that transmits 190,000 times per day per meter.

If the claim that PECO is operating a mesh system had been made at hearing, then PECO would have put on testimony – as it has done in its written prefiled testimony in the *Povacz* and *Murphy* dockets -- that it chose a non-mesh technology that operates just outside of the crowded Industrial, Scientific and Medical (“ISM”) radio frequency band (902-927 MHz), instead using two narrow reserved bands at 901.1-901.2 and 940-940.1 MHz. Because it is using the narrow bands reserved solely for its use in its service territory, it does not have to “compete” to be heard in the ISM band and therefore does not utilize a mesh technology.

But even without that additional testimony, the record evidence in this case is clear: Mr. Pritchard testified that the average PECO meter transmits 10 times per day, not 190,000 times per day.

Simply put, all of Ms. Kreider’s concerns, and her testimony about those concerns, are about a system that is completely different than the system PECO is using. The extra-record information from Mr. Powell, while not admissible at this late date, makes it quite clear that this is the case.

11. The Commission cannot grant the relief requested by Ms. Kreider in the Conclusion section of the Kreider Brief

This section of the Kreider Brief requests four forms of relief:

- Complainant wants to keep the Sangamo she purchased and have the ability to report actual kWh as measured by the analog meter;
- Consideration of compensation for damages;
- Fees for licensed electricians consulted for remediation;
- Lost wages

The last three requests – damages, fees for licensed electricians consulted for remediation, and lost wages – are all variations of requests for damages. It is well-established that the Commission does not have jurisdiction to award damages.

The first request – to keep an analog meter and call in its readings – is effectively a request to avoid the installation of an AMI meter at her residence. Your Honors and the Commission have both already ruled on such requests. As Your Honors stated in the April 5, 2016 *Order Granting in Part and Denying in Part Respondent's Preliminary Objections in Tucker v. PECO Energy Company*, C-2015-2515592:

Relief sought by the Tuckers includes an 'opt out' of installation of a smart meter. FN The Commission has stated that there is no provision in the Code, the Commission's Regulations or Orders that allow a PECO customer to 'opt out' of smart meter installation. (Citing *Povacz*). The opt-out remedy sought by the Tuckers is not available as the law stands today.

Footnote in Order: "The Complaint mentions an 'accommodation,' and in the Answer to the Preliminary Objection, Complainants also contend that PECO should make changes, alterations, substitutions and accommodations for the safety of its customers. Although opt is not now available, when a customer alleges negative health effects, the Commission has noted that a company may install the smart meter at a different location or use a different type of smart meter. (Citing the

Commission's January 28, 2016 Order remanding the *Kreider* case for hearing.)

The landscape for remedies and accommodations is thus as follows. The Commission does not have jurisdiction to award damages. The Commission and Your Honors have already ruled that Act 129 does not allow an opt out; Ms. Kreider must have an AMI meter installed. As discussed in PECO's Main Brief (p. 29), there are no alternative types of meters currently available that do not use radio frequency transmissions to communicate. The remaining alternative, therefore, is to relocate the meter. As PECO explained in its Main Brief (pp. 28-30) this could be accomplished if Ms. Kreider hires an electrician to relocate her meter board to a new location on her property. PECO would then extend its facilities to that new location, at Ms. Kreider's cost. While Ms. Kreider has explicitly rejected this option to date, PECO remains open to working with Ms. Kreider to accomplish this accommodation.

III. Conclusion

For the reasons set forth above, PECO respectfully requests that Your Honors issue an order that:

(1) the extra-record evidence contained in the Kreider Brief is not admitted into the record in this proceeding;

(2) PECO provided reasonable utility service to Ms. Kreider pursuant to 66 Pa. C.S. §1501 by offering to extend its service lines, at Ms. Kreider's cost, to a new meter board/socket location once she hires an electrician to move her meter/board socket to that new location;

(3) the Complaint is dismissed;

(4) PECO may install an AMI meter at the Kreider residence; and

(5) if Ms. Kreider continues to deny access for the purpose of installing an AMI meter, or subsequently removes or modifies the AMI meter, PECO may terminate electric service to her residence.

Respectfully submitted,



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PENNSYLVANIA PUBLIC UTILITY COMMISSION

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Susan Kreider

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Docket No. C-2015-2469655

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PECO Energy Company

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CERTIFICATE OF SERVICE

I, Ward L. Smith, hereby certify that I have this day served a copy of the Reply Brief of
PECO Energy Company via overnight mail to:

Susan Kreider
169 W. Queen Lane
Philadelphia, PA 19144

Dated at Philadelphia, Pennsylvania, May 23, 2016



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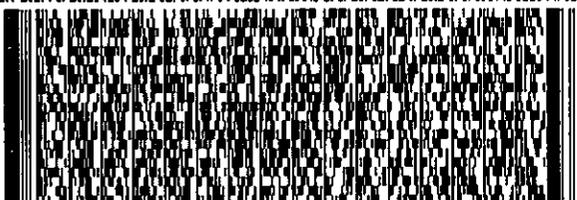
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