

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

NORBERT SLIWINSKI,

Complainant,

vs

Docket No: C-2016-2559985

DUQUESNE LIGHT COMPANY,

Respondent

**MOTION TO COMPEL DUQUESNE LIGHT COMPANY TO FULLY ANSWER
COMPLAINANT'S FIRST SET OF DISCOVERY REQUESTS AND RESPONSE TO
DUQUESNE LIGHT COMPANY OBJECTIONS AND ANSWERS**

Respondent DUQUESNE LIGHT COMPANY (Duquesne Light or DLC) submitted its objections to Complainant's First and second set of Discovery Requests.

This pleading only responds to the Requests to which Duquesne Light has an objection or did not give full and complete answers. It is impossible for Complainant to protect his rights and perform his duties before his Creator without full and complete disclosure by Duquesne Light. As a utility regulated and protected by Pennsylvania for the benefit of the people on Pennsylvania, Duquesne Light has a duty to provide full and complete responses to all requests pursuant to 52 Pa. Code § 5.342, the Pennsylvania Constitution, and the Constitution for the People on these united states of America. It must be assumed by the Complainant that the PUC will act to compel DLC to provide relevant information

COMPLAINANT OPENING REMARKS AND COMMENTS

First, without the informed consent of Pennsylvanians, and without the public provision of accurate information, indeed, by way of the widespread distribution of false claims, DLC has been replacing analog meters with what DLC – misleadingly - calls advanced metering infrastructure (“AMI”) or “smart” digital meters.

AMI meters have led to increased utility costs for many people, despite DLC claims of reduced costs. Though purported to help “manage” electricity usage and save money and energy, reports have shown that AMI meters cost people more and waste energy. Per CBS-Pittsburgh in May 2016, Duquesne Light customers have reported billing problems since AMI installation. [1] Additionally, utility customers have been forced to foot the bill for smart meter deployment and will continue to pay for installation and maintenance as these meters require replacement every five to seven years.

I asked the following question using social media:

“Did anyone experience higher utility bills since the roll-out of the Smart Meter”?

https://nextdoor.com/news_feed/?post=88640367

Some responses below:

Nancy Anderson

O'Block Park - Plum- 10 Aug

“We just got our bill and it pretty much doubled. Nothing has changed in our home, either. We are on the phone with the electric company right now. Going to ask them to do a check to see why our bill doubled!!!!!! “

Elizabeth Lovic

Drexel Drive-13 Aug

“Yes, my bill went up a lot! “

Debbie Fox

Flying Shuttle Hills-13 Aug

“Yes! “

Q: How much?

A: “Norbert, not sure would have to compare older bills. I will agree with the person who said, that with the high temp. and humidity, been running the air conditioner 24/7. Will have a better idea when temps cool down and just using everyday/normal electricity, not including the air.”

Kash Ganesh

Garden City-6 Aug

“Mine went up by \$30

The Environmental Protection Agency's (EPA) Energy Star program, which sets certification standards for more efficient appliances and buildings, can provide energy saving metrics spanning over a decade of energy savings for customers. [3] Programs such as the EPA's Energy Star program with proven customer savings data as well as energy conservation efforts already made by individual energy customers make AMI meters obsolete, unless the purpose of the so-called meters is actually to use them to control electric usage in our homes. It is well established that these so-called meters are interfacing directly with electrical household appliances, such as Refrigerators, Microwave Ovens, Vacuum sweepers, Washers and Dryers etc. via radio frequency identification devices (RFID) chips.

Proponents of AMI meters can only cite *possible* customer savings from projections, simulations, and estimates, contrary to actual results in the bills of the people on Pennsylvania. [4] The utility company business model contains inherent conflicts of interest as utility companies have no incentive to sell less electricity, water or gas, and admit these same utilities stand to profit greatly by selling the data stolen from the homes of their customers. DLC will claim that the data is not stolen. However, DLC claims in its own literature that all customers will be enrolled in data sharing UNLESS the customer requests to opt out of sharing. It is not reasonable to expect the average customer to be aware and fully understand if they are aware. DLC must be

restricted from storing ANY information specific to individual customers longer than one hour in order to protect the sanctity of people's homes.

AMI meters on homes are being confused with the broader idea of a "smart" grid as being able to deliver energy efficiency and cost savings to customers while at the same time their emphasis diverts private, state, and federal resources needed to improve the energy grid.

It is by definition that corporations are only persons, i.e. they are only legal entities created for and sanctioned by government and have no Natural Rights. Electricity use in homes is primarily used by private people who have Natural, God given rights. God ascribes to people certain duties. So that they can perform those duties he has ascribed to them certain rights. Because of the duties so ascribed, these rights cannot be given away, nor can they be taken away.

Some of those rights are enumerated in the Pennsylvania Constitution and in the Constitution of these united states of America. In particular I refer to Article 1 Section 8 of the Pennsylvania Constitution and the Fourth Amendment of the Constitution of these united states of America.

In violation of the Fourth Amendment to the U.S. Constitution and Article 1 Section 8 of the Pennsylvania Constitution, to which this court has taken his Oath of Office, AMI meters surveil people. The surveillance is by transfer of information of the intimate activities in the home approximately every 10 seconds, all without a warrant.

Further violation of the privacy of the home is or is planned to be by control of appliances in the home.

To change any contract both parties must have a meeting of the minds. *Informed* consent is legally required for installation of any surveillance device and any device that will collect and transmit private and personal data to undisclosed and unauthorized parties for undisclosed and unauthorized purposes. No such customer consent has been requested by utility suppliers. No meeting of the mind has occurred.

Further, DLC then plans to profit from their Fourth Amendment violations of all Pennsylvanian customers by the sale of intimate details of their private lives to corporations and government agencies.

The surveilled persons are even deprived of their Due Process to learn the nature of their unwarranted surveillance and to whom the surveilled information has been sold. Buyers can then resell the information to other unknown users, endangering surveilled persons and their homes.

Third, the radio frequency/microwave (RF/MW) radiation these Itron meters transmit harm to all human and other living beings, as substantiated by the overwhelming majority of extant body of scientific bioeffects literature. AMI meters are licensed to use and do use RF/MW radiation, of the type which is proven in scientific literature, and as shown below and by the attached bibliography, to cause neurological impairments, illnesses and injuries, cardiac irregularities and disease, reproductive damages and infertility, immune

deficiencies and cancer. Such radiation positively harms animals, insects and plant life, in particular altering human and animal nervous system function and reducing populations of pollinators and food availability.

AMI meters' RF/MW irradiation constitutes assault and public endangerment. For all persons, the actual harm occurs immediately, with the suppression of the hormone melatonin and electromagnetic interference with nerve transmissions and cellular functions. The symptoms may be experienced in the short-term as sleep impairments and fatigue, tinnitus, headaches, learning, memory problems, difficulty concentrating, agitation, heart palpitations, skin problems and more. In the long-term symptoms can present as full dementia, angina, cancer, immune-deficiency conditions, and can cause early death.

It bears repeating: the damage to living organisms, plant, animal and human, begins immediately on exposure to the radiation from the Itron controllers. For some, the symptoms may present within seconds, while others may never experience symptoms that are directly attributed to the damage done by this radiation.

The extraordinarily large body of **peer-reviewed** scientific studies, numbering in the tens of thousands, proves adverse biological effects on living beings exposed to RF/MW radiation. Dr. Martin Pall, Professor Emeritus of Biochemistry and Basic Medical Sciences at Washington State University and researcher of electromagnetic fields, wrote a letter to California Legislators on August 7, 2017 opposing California Bill SB. 649 where he wrote in explicit detail the dangers of wireless radiation. This letter can be found at the following address: <http://scientists4wiredtech.com/2017/08/dr-martin-pall-opposes-sb649/>. Other scientists and medical professionals who warn against the proliferation of wireless technology include Dr. Beatrice Golomb [11] and Dr. Devra Davis. [2] The utility industry cannot promote AMI meters as "safe", as many are doing.

Duquesne Light Company has been installing these Itron controllers over the objections customers, insisting they cannot cause harm, despite overwhelming agreement among medical professionals and scientists that the opposite is true. For example, residents who are having new AMI meters installed on their homes in Southwestern Pennsylvania have been sent a brochure by First Energy claiming that the RF generated by smart meters is NOT hazardous to their health. [5] Per Supreme Court-admissible evidence - Daubert Rule (1993), the claim of safety is absolutely false. **This outrageous fallacy represents a fraud upon the people. That alone should shut down the entire AMI grid and cause every AMI meter immediately to be replaced by a mechanical, analog radiation emitting meter.**

Seven years ago, the World Health Organization (WHO) released a statement as follows: "The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic

fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer, associated with wireless phone use". [6] in recent years, prominent and prolific researchers in the field, including Lennart Hardell PhD,[13] show that radiofrequency radiation is a Class 1A carcinogen. This year, a group of international scientists under the Ramazzini Institute, have shown in a large, lifetime study, that RF/MW radiation is positively a carcinogen. [7]

Decades of peer-reviewed scientific studies also conclude that DNA is damaged by what is wrongly characterized as "low-intensity" RF/MW radiation (see a partial list of recent **peer-reviewed** studies at the end of this letter). I urge you to look at these studies in full to get a minimal sense of the volume and quality of research that has been done on this matter and to see that there is strong evidence for biological effects caused by RF exposure.

All humans and animals suffer melatonin suppression, with its various outcomes. Such effects were *scientifically established* as far back as the mid-1960s (see the Naval Medical Research Institute's report MF12.524.015-00043, Report No.2 referenced at the end of this letter). Some are more immediately, noticeably, and severely affected than others. A report from the American Academy of Environmental Medicine recommends that patients with certain medical conditions be accommodated to protect their health by not having a smart meter on their home, and by having a smart meter be removed within a reasonable distance from the patient's home, and by not having collection meters placed near the patients' home. [8] How is this possible for those endangered people who live in multifamily housing?

Instruction supplied by Itron are that these meters are only to be installed on the outside of a building. Additionally, these new Itron controllers also cause power quality problems by transient pulses disrupting the proper sine wave, sometimes called "dirty electricity" on home wiring created by the switching mode power supply used to run the controllers. These pulses cause radiation pulses all through the home, not just at the Itron controller unit.

Many older homes are not equipped to handle these pulses and the "dirty" electricity generated from the "smart" meter is just as great a health threat as the RF generated by the meters.

Duquesne Light Company and other utilities appear to have little financial risk in ramming attack on the people since our state regulators are allowing them to pass all costs on to the customer and they receive grants paid for by the tax paying people. The Pennsylvania Public Utility Commission (PA PUC) has so far turned a deaf ear in this matter. They seem to be more interested in promoting these meters than they are in effectively regulating the industry. The legislature passed an OPT-IN bill with the following language in HB2200 that became Act 129 (2008) and public record:

HB2200 §2807(f)7(2) Legislative History as published of record:

(2) Electric companies ***shall*** furnish smart meter technology as follows:

(i) Upon request from a customer that agrees to pay for the cost of the smart meter at the time of the request.

(ii) In new building construction.

(iii) In accordance with a depreciation schedule not to exceed 15 years.

The above statute has been presented to hundreds of the people of Pennsylvania. Some of those were the very legislators who voted for the statute. Almost universally, the exceptions being some utility attorneys and some PUC attorneys, the people said they read the statute such that no Itron unit is required on an existing home UNLESS the customer requested it, no matter the other circumstances. Both Pennsylvania law and the law of these united states of America require the reading and enforcing of a statute to be in accordance with the common understanding of the wording. Clearly, this has not been followed to date.

DLC and the PUC changed the intent of HB2200 of 2008 into a mandatory “smart” meter law as an implementation order when writing regulations for utilities at the June 18, 2009 Public Meeting based upon the PUC’s “beliefs” about the legislation, not the actual law. Said belief represents a remarkable contortion of how the people generally read those same words. Pennsylvania Act 129 of 2008 is, therefore, illegal because it violates an individual’s constitutional rights, because the Pennsylvania PUC interpreted law by its “belief,” which is contrary to the legal method of law-crafting in the Commonwealth of Pennsylvania, and because it violates the people of Pennsylvania legal rights to redress, due process, and to function as an informed consumer with consumer protection rights that must be exercised by a state agency, the Pennsylvania PUC, and corporate businesses. This, in addition to the right to full disclosure, truth, and a meeting of the minds in a change of contract. Based upon the common understanding of the several federal and state statutes involved in deployment and funding, even giving a customer the right to opt out at a cost is unacceptable.

It is the writer's opinion that the grants funded by the federal tax dollars are required to be in accordance with the federal statute commonly called the Energy Act of 2005. That act requires that ALL installation of AMI devices be deployed ONLY at the customer request.

Chairman of the House Consumer Affairs Committee, Robert Godshall will not even honor the call for an opt-out bill to the floor for a vote despite numerous attempts by various congressmen over the years. It should be noted that Chairman Godshall's son Grey works for Exelon/PECO, a company that stands to greatly benefit from the deployment of AMI units. It should be further noted that Chairman Godshall has exempted himself and his neighbors from AMI units by the clever wording of Act 129 of 2008.

State Rep. Mike Reese announced January 14th & 15th of 2018, that he intended to introduce all three bills once again (HB-899, HB-902, HB-906), while also adding a fourth bill that would encompass all three issues, in the PA State Legislature. Reese put out a memorandum looking for additional co-sponsors for such bills. Monday February 9th, Rep. Mike Reese and his co-sponsors introduced four Smart Meter bills into the Consumer Affairs Committee as follows:

HOUSE BILL 393: Repeal Smart Meter Mandate (printer no. 430) – No government body should mandate the usage of any technology because it jeopardizes common principles of supply and demand. This law would remove language that requires electric companies to provide smart meters, while still allowing them to offer the technology. The following members served as co-sponsors: REESE, BARRAR, BLOOM, DeLUCA, DIAMOND, DUNBAR, DUSH, EMRICK, EVANKOVICH, GABLER, GILLEN, A. HARRIS, JAMES, KAUFFMAN, MALONEY, MARSHALL, METCALFE, METZGAR, MUSTIO, PETRARCA, PICKETT, REGAN, SACCONI, SAYLOR, SNYDER, SONNEY, and TALLMAN. **HOUSE BILL 394:** Consumer Opt-Out Smart Meter Usage (printer no. 431) – This law would (1) provide consumers the ability to “opt-out” of receiving a Smart Meter and (2) require the Pennsylvania Utility Commission to create a fair surcharge system that would be paid by consumers. This is similar to laws recently passed in Maine, Nevada, and California. The following members served as co-sponsors: REESE, BENNINGHOFF, BISHOP, BLOOM, V. BROWN, DeLUCA, DIAMOND, DUNBAR, DUSH, EMRICK, EVANKOVICH, GABLER, GRELL, GROVE, A. HARRIS, JAMES, KAUFFMAN, LAWRENCE, MALONEY, MARSHALL, METCALFE, METZGAR, MUSTIO, PETRARCA, PICKETT, REGAN, SACCONI, SAYLOR, SNYDER, SONNEY, and TALLMAN.

HOUSE BILL 395: Consumer Consent to Share Smart Meter Information (printer no. 432) – This law would ensure that customer consent is required before information gathered by the Smart Meter technology can be shared with government agencies. The following members served as cosponsors: REESE, BARRAR, BLOOM, DIAMOND, DUNBAR, DUSH, EMRICK, EVANKOVICH, GABLER, A. HARRIS, JAMES, KAUFFMAN, MALONEY, MARSHALL, METCALFE, METZGAR, MUSTIO, OBERLANDER, PETRARCA, PICKETT, and SACCONI. **HOUSE BILL 396:** Combines All Three Proposals – This law combines all three proposals into one. The following members served as co-sponsors: REESE, BLOOM, DeLUCA, DIAMOND, DUNBAR, EMRICK, EVANKOVICH, GABLER, GROVE, A. HARRIS, KAUFFMAN, KRIEGER, MUSTIO, PICKETT, SACCONI, SNYDER, and TAYLOR.

The solution would be a law that defines the rights of Pennsylvania utility customers to refuse harmful new technology. Utility customers should have the right to retain the traditional electro-mechanical (analog) meter, at least until the industry develops a replacement for it that meets the objections of utility customers. The state of Oklahoma recognizes the health impacts of radiofrequency radiation and has introduced such a bill, HB 2872, that provides (1) A choice of the type of utility meters to be installed and operated on their places of residence, property or business; among the choices offered shall be the installation or ongoing operation of a no transmitting electromechanical analog meter; (2) The ability to retain and operate an electro mechanic analog meter on an ongoing basis at no cost; (3) The right to replacement of a wireless meter with a no transmitting electromechanical meter at no cost; and states that (4) The utility companies shall be required to obtain the ratepayer’s written consent, i.e. opt-in or opt-out before installing wireless meters or equivalent technology on the ratepayer’s property and before altering the functionality of said meters. [10]

**DUQUESNE LIGHT'S RESPONSES TO COMPLAINANT'S
FIRST SET OF DISCOVERY REQUESTS**

Respondent Duquesne Light Company (“Duquesne Light”) submits the following Responses to certain of Complainant's First Set of Discovery Requests.

GENERAL RESPONSES AND COMMENTS

1. Duquesne Light's responses to the discovery requests are made to the best of its present knowledge, are based upon information currently known to Duquesne Light, and are given without prejudice to his rights to change, supplement, and/or clarify its answers and responses, if necessary.
2. To the extent that the discovery requests purport to enlarge Duquesne Light's obligations beyond the requirements of the applicable rules of practice and procedure and/or imprecisely specify the information requested and/or documents requested, Duquesne Light has endeavored in good faith to produce discoverable information that can reasonably be identified as responsive to the discovery requests.
3. Duquesne Light's responses to the discovery requests are limited to the smart meters being installed in the company's service territory.

Comment to the above:

This position by DLC does not provide them with a basis to ignore a non-respond to issues that have been raised in general by independent credible experts because their Smart Meter is not significantly different than the ones deployed by other utilities in other cities, other states or even other countries. This is an inherent technology issue and not an issue specifically for DLC Smart Meters.

4. Duquesne Light's responses to the discovery requests are made subject to, and without in any way waiving or intending to waive, any objections as to the competency, relevancy, materiality, privilege or admissibility of evidence, for any purpose, of any of the information provided and/or documents produced. In the event that any privileged information is divulged by Duquesne Light, its disclosure is inadvertent and does not constitute a waiver of any privilege.
5. Duquesne Light's responses to the specific discovery requests are written in bold font below.

**List of Questions from Complainants First set of Discovery
Requests with the inadequate answers from DLC on July 17, 2018**

1. Provide material/evidence that the material represented in my discovery response does not provide the basis for a valid conclusion. In your response and the Report of Gabor Mezei, he expresses only his **Opinions** but offers no evidence documents, pictures, videos to substantiate his Opinions.

Response: Duquesne Light objects to this Request on the grounds that it incomprehensible, and vague in that it does not define “valid conclusion.” The second sentence of this Request does not have valid request; therefore no response is required. To the extent that a response is required, see the expert report of Gabor Mezei, which speaks for itself.

I apologize if you did not comprehend my questions, please keep in mind that I am not a lawyer and therefore, do not speak lawyer talk.

OBJECTION: So, I am objecting to Dr. Mezei’s Summary of Opinions.

He states – and I am abbreviating - on Page 1 – 1 that it is his opinion that a causal relationship of environmental exposure to RF fields in general and RF fields from DLC meter do not have an adverse effect, and is not established. I have presented a number of exhibits from well-established scientists and epidemiologists who have published papers saying just the opposite. So how did he “establish” his opinion? He listed in his “Evaluation of the Complaint” Page 8-1 that I had presented “ Non-peer reviewed documents” which is not true, see Page 12 of First set of Discovery Request Exhibit B Studies showing Biological effects of RR on living tissue Page 17 Exhibit C which lists additional peer-reviewed references citing an International Appeal of scientists calling for protection from Non-ionizing EMF. (Copy of said request see Exhibit A attached below) The sheer number of scientist listed in above exhibits should more the fulfill the Weight-of-evidence requirement.

I am objecting to DLC’s reply on the grounds that the Report does “not speak for itself” but lacks any kind of personal involvements or specific knowledge regarding EMF radiation i.e. long-term

Commented [NS1]:

exposure of DLC's SM radiation to live human beings. Also, define what makes Gabor Mezei, a paid contractor, an "Expert". Your response to my question is just that, a response. It does not answer the question being asked. If Dr. Mezei really would have true knowledge of EMF radiation, he would know, that when one is exposed to 2.4Ghz frequency, water molecules begin to rotate in our bodies, and since we human being are made of between 60 -70% water, it will create serious health issues. What exactly did Dr. Mezei base his assessment on? DLC bases its answers on assumptions and supposition. Yet DLC complains that all my evidence is based on assumptions and are hypothetical. Though there is no material difference between DLC's and my evidence. So, again your response that your "expert report of Gabor Mezei, speaks for itself, is ludicrous. It does not answer my question.

2. Provide a detailed response to each of the **peer-reviewed** Governmental Study regarding biological effects of RF radiation on living tissue: by the U.S. Office of Naval Medical research done in 1971 [13]

Response: Duquesne Light objects to this Request on the grounds that it is overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. Also, the study by referred to in the Request does not involve the Itron smart meter being installed by Duquesne Light, therefore, any information sought in this Request is irrelevant to the present action.

OBJECTION: I am objecting to DLC reply on the grounds that the report specifically addresses the harmful effects, caused by elevated and prolonged exposure from ANY EMF source. The study deals with EMF, and is still very relevant today, regardless of which SM is used, since AMI meters produce 900Mhz and 2.4GHz frequency respectively.

3. Provide verifiable (by a non-partisan, impartial witness/observer) evidence/proof that DLC's SM do not have over 100 adverse health effects in light of the studies done by experts below.

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. Also, the study referred to in the Request does not involve the Itron smart meter being installed by Duquesne Light, therefore, any information sought in this Request is irrelevant to the present action. To the extent that a response is required, see the expert report of Gabor Mezei, which speaks for itself.

OBJECTION: I am objecting to DLC reply on the grounds that the Report does “not speak for itself” but lacks any kind of personal involvements or specific knowledge regarding EMF. i.e. actual term exposure of DLC’s SM radiation to actual human beings. Define what makes Gabor Mezei, a paid contractor an “Expert”. DCL’s response is just that, a response. If he really would have knowledge of EMF radiation, he would know, that when one is exposed to 2.4Ghz frequency, water molecules begin to rotate in our bodies, and since humans contain of between 60 -70% water, that frequency will create real health issues. So, again your response that your “expert report of Gabor Mezei, speaks for itself, is ludicrous. It does not answer the question

2. What will be DLC's response if your Itron SK9AMI7 HW 3.1 Open/Way CENTRON Single Phase Smart Meter would catch fire, or explode? Will you be financially responsible for the damages caused by fire/explosion, regardless of cause? (Lightning strike, power surge, malfunction of internal components, etc).

Response: Duquesne Light objects to this Request on the grounds that it seeks hypothetical or speculative information. To the extent that a response is required, Duquesne Light has no knowledge of any of its smart meters catching fire or exploding.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question being asked. It is not an answer, and am compelling your honor to rule accordingly. It is not a question of having any knowledge of having a DLC smart meter explode, as it is a fact that they can and most likely will. As previously answered DLC does not warrant their Smart Meters which are a manmade device and as such are eventually always subject failure. So, what is DLC position when it does? Who will be responsible?

3. Provide evidence (Engineering drawings, pictures or videos, showing location of adequately sized surge protector. List part #, Model #, S/N #, Manufacturer's name together with maximum inrush voltage) as installed in DLC's SM.

ANSWER: The OpenWay CENTRON meter is designed to exceed ANSI C12.1 requirements. The attached test report indicates the OpenWay CENTRON meter is in compliance with the following surge or transient conditions outlined in the ANSI C12.1 specification.

4.7.3.3.1 100 kHz ring wave: This test subjects the power input of the meter device to a 100 kHz Ring Wave with a Peak Voltage of 6 kV and ShortCircuit Peak Current of 0.5 kA.

4.7.3.3.2 High Voltage Line Surge - Combination Waveform: This test subjects the AC power input of the metering device to a 1.2/50 us - 8/20 us combination wave with a peak voltage of 6 kV and peak current of 3 KA.

4.7.3.7 Test No. 21: Effect of current surge in ground conductor: Three metering devices shall be subjected to one transient surge of 20 000 A

(20/50 microsecond wave) of either polarity through a conductor placed vertically 1.5 inches (38.1 mm) behind the flat portion of the base of the metering device, with a socket in place. This test shall not apply for metering devices with terminal compartments (Type A) or for Class 10 or Class 20 metering devices.

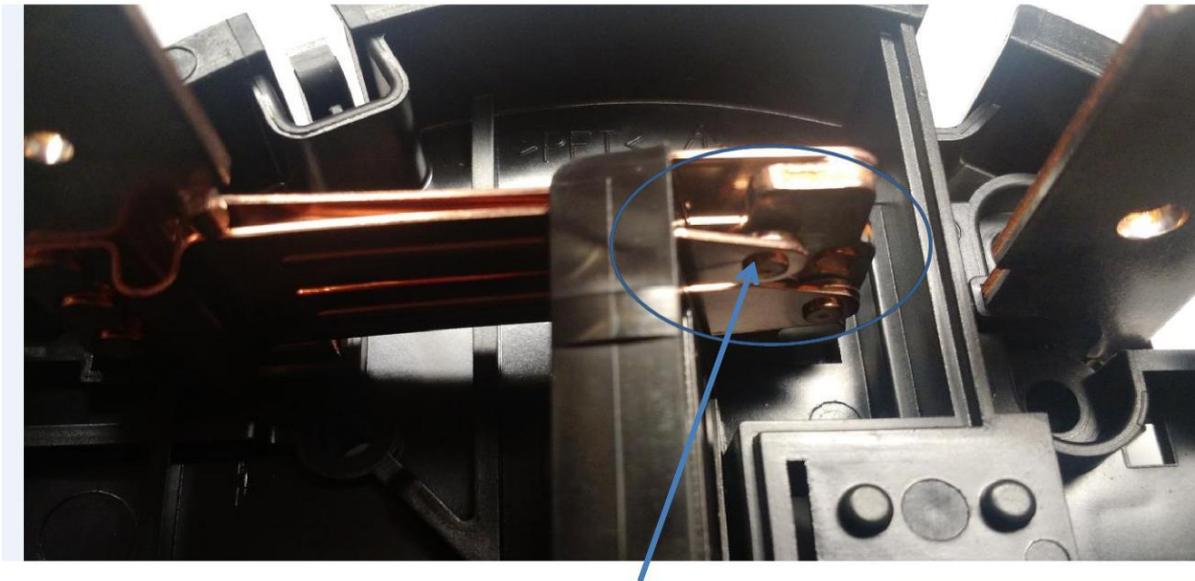
4.7.3.11 Test No. 25: Effect of electrical fast transient/burst test: The metering device shall meet the Fast Transient Surge Test requirements of IEC 61000-4-4. This test subjects the power inputs and the I/O circuits of the metering device to repetitive bursts of 5 ns rise time, 50 ns duration electrical fast transients.

- a. Test voltages on the voltage and current circuits: 4 kV
- b. Test voltage on I/O signal, data and control lines: 2 kV
- c. Repetition rate 5 kHz
- d. Duration of the test: minimum 60 seconds

4.7.3.11a Test No. 25a: Effect of electrical oscillatory SWC test: The metering device shall meet the Electrical Oscillatory SWC Test requirements of IEEE 37.90.1. This test subjects the power inputs and the I/O circuits of the metering device to repetitive bursts damped oscillatory waves with an initial crest of 2.5 kV for a duration of 2 minutes.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, citing technical manufacturing data, which is not an answer. Being in compliance does not guarantee the all meters DLC seeks to install have adequate surge protection. I had asked a specific question, which you choose not to answer

See Ref [16] Page 46. Here is an actual Itron Meter OpenWay as used by DLC showing why a meter could catch fire or explode.



In this photo the contacts are shown from the sliding the plastic lever you will note that these contacts are relatively small and would not likely be able to withstand 200 AMPS full load. Perhaps 40 AMPS. For comparison the Landis + Gyr meters have three contacts and are 3x the size.

2. Produce documented and visual evidence (actual time stamped video) using a FLUKE 215C Oscilloscope - or equal, connected to DLC's SM - recording the electrical sine waveform. Confirming that the DLC's SM does not produce "dirty electricity" or high voltage transients. Above to be performed at a neutral or private lab, not affiliated or owned by DLC.

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. Duquesne Light additionally objects to this Request on the grounds that it would require an unreasonable investigation.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question being asked. It is not an answer, and am compelling your honor to rule accordingly. DLC is a multi-million-dollar company and it should not be difficult to locate a suitable non-partisan, neutral lab to perform the above test. A similar test has been performed already as seen here:

<https://www.youtube.com/watch?v=4NTSejgsjTc>

All – so called – Smart Meters operate using the technology of s SWITCHED MODE POWER SUPPLY or (SMPS) to reduce the incoming high A/C current to DC current.

See Ref [16] Page 46

Advanced Meter Infrastructure (AMI) Meters and their (SMPS)

Analog
Meter



What is the AMI Meter?

The AMI meter is commonly called a “Smart” meter and is the end point of a Smart Grid infrastructure attached to your house. The AMI end point is not required for a Smart Grid to exist. In fact, the Smart Grid will take over two decades to fully deploy, but the utilities decided to deploy the AMI Meters based on incentives and payments from the Federal Government included in the Community Re-Investment Act of 2009. The useful life of the AMI meter is 5-7 years and needs to be replaced due to the aging of the electronic components.

At that point all the costs will be borne by the utilities and will be recompensed by the consumer in the form of higher rates. The older Analog meters which the AMI replaced are still available and have a useful life of 30-40 years and had no electronic circuits.

See Ref [16] Page 46

SMPS with Common Mode Filter – Principles You Need to Understand

What you need to know about the effects of applying electrical and magnetic principles

- A SMPS utilizes a switching semiconductor (electronic chip) circuit to reduce the overall size and weight of the power supply and improves efficiency. This chip has other components that limit the amount of voltage rise in the switching circuit, these are called capacitors and can be in either cylindrical in shape, a flat or box shape. There are many other parts but these are the key components.
- A SMPS works similarly as if you were to turn your light switch on and off at a very high frequency. The amount of voltage reaching the light would be reduced to a fraction of its full voltage illumination making the light dim. You could do the same thing with a very large resistor, but that resistor would get extremely hot very quickly, consume large amperages and waste power.
- Whenever you switch electricity between on and off you create an electric spike in the electrical signal that looks like a saw tooth shape waveform on an oscilloscope, this creates RF noise (static) and magnetic effects, these are called EMI/RFI leading to dirty electricity.
- When you place a voltmeter into a common house outlet the volt meter is providing a measurement. RMS is an abbreviation of the term “Root Mean Squared”. The actual peak voltage of a common house 115-120 volt AC cycle is about 177 volts. The RMS voltage is 120 volts.
- Never grab a house circuit with your hands, it will kill you because you are not be able to let go of the wires, because your muscles contract and the current will not let you release yourself. Then you go in heart seizure, this is very deadly.

See Ref [16] Page 46

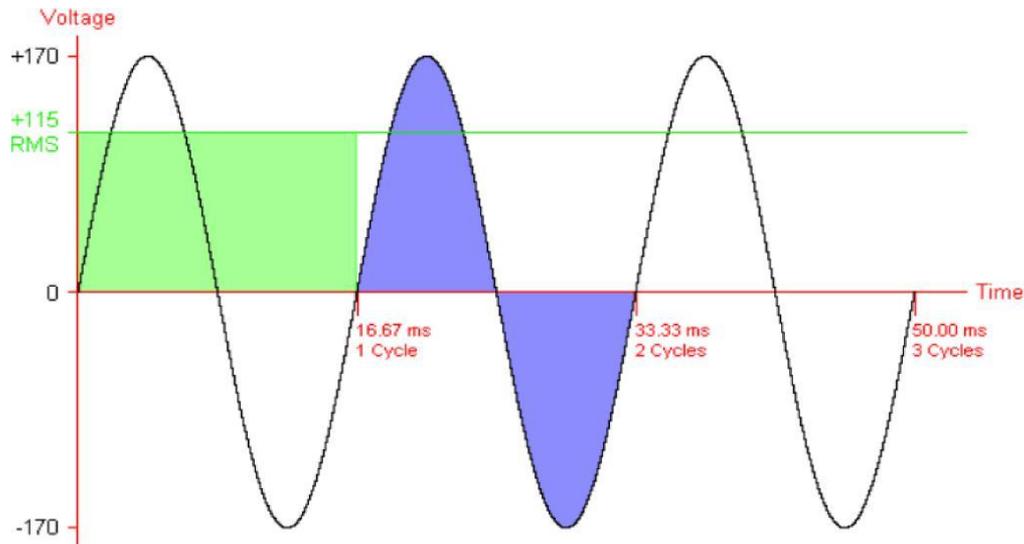
SMPS with Common Mode Filter – Health Effects You Need to Understand

- This report is not meant to be a comprehensive review of the health effects from the oscillations present in a SMPS such as the AMI's oscillations in the form of "Dirty Electricity", but here are some important issues.
 - In August 2010, in a spectacular announcement that got very little coverage, noted epidemiologist, Samuel Milham, MD linked the growth of electrification and the incidence of four of the big six diseases. In his book "Dirty Electricity: Electrification and the Diseases of Civilization." Dr. Milham connects *dirty electricity* with heart disease, cancer, diabetes, neurological disorders like ALS and suicide. See <http://www.electricsense.com/5229/dirty-electricity-electrification-and-the-diseasesof-civilization/>
 - This report is not to comment on the radio emissions of the AMI meter except to say there is a lot of research and reports with the most alarming one on low level radiation direct link to cancer in the same 900 MHz frequency range used by the AMI meter and cell phones. The difference is that the cell phone can be turned off, while the AMI meter never goes off and it is on every home on the street creating a "Radio Soup" environment you cannot get away from.
The National Toxicology Report found here at <http://biorxiv.org/content/early/2016/06/23/055699.full.pdf+html>

See Ref [16] Page 46

Principles You Need to Understand

The Standard Single Phase 60 Cycle/Second 115 -120 Volt AC Power Oscillation Waveform

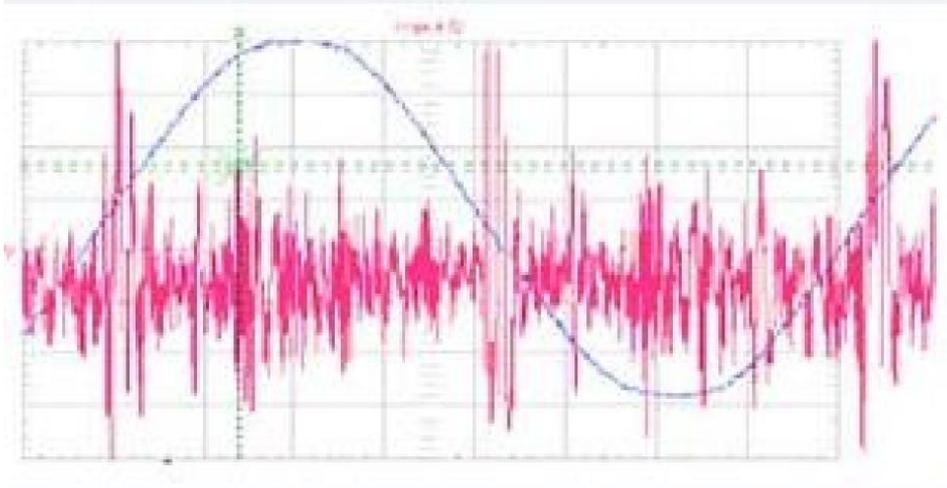


This waveform displayed is the same as an oscilloscope trace would look like, you cannot see this on a common voltmeter you would only see the reading of 115-120 volts RMS

See Ref [16] Page 46

Principles You Need to Understand

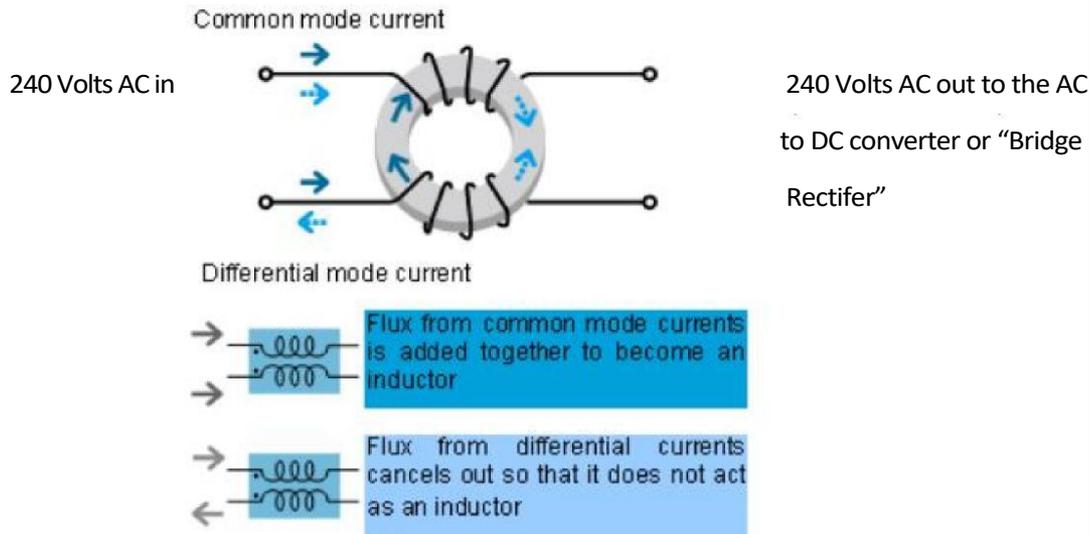
The Standard Single Phase 60 Cycle/Second Waveform with EMI/RFI introduced by the SMPS



This waveform displayed is the same as an oscilloscope trace would look like, you cannot see this on a common voltmeter. Now we have introduced the effects of EMI/RFI to the same wire carrying the house current. This effect can be better depending on the environment especially how good the house earth ground is magnetically coupling the house voltage currents. There are many variables that affect this waveform. The image in red should never be there, I have found this pattern consistent with every AMI meter, including the AMI meter with the radios off.

See Ref [16] Page 46

SMPS with Common Mode Filter - Example



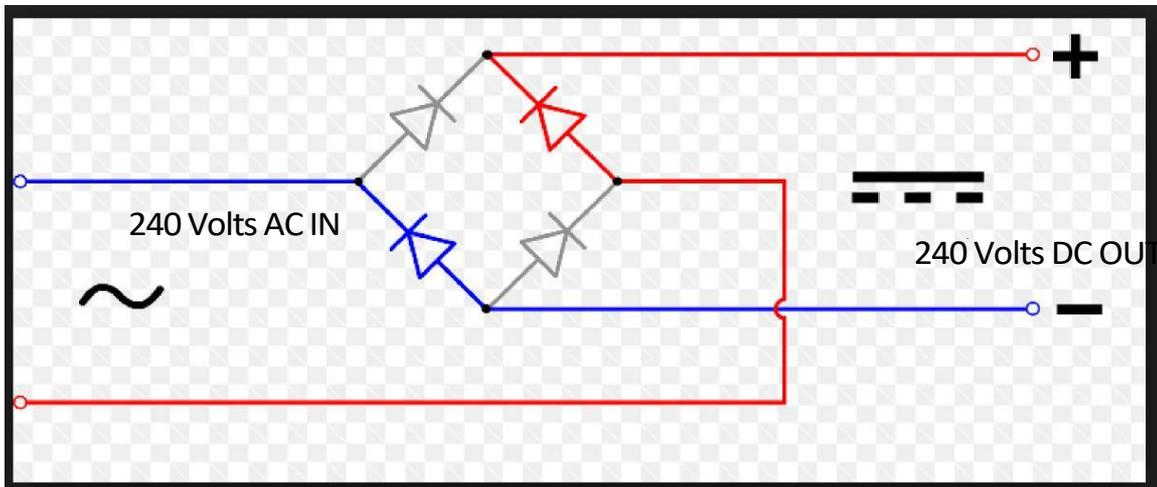
In this simplified representation it is very important to note that AC current flows in and out, it is bi-directional. Therefore, any oscillations created by the switching circuit cancel each other out via counter acting magnetic flux within the ferrite core.

Commented [NS2]:

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SMPS with Common Mode Filter – Example – AC to DC Converter

In this representation it demonstrates how you turn AC voltage into DC voltage



this is called a diode bridge and only allows one-way flow similar to a check valve in plumbing you need 4 of them and it is termed as a "Bridge Rectifier"

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SMPS with Common Mode Filter - Example



Here is an example of a common mode filter that does the same job as a donut shaped filter, same job as a donut shaped filter, here the ferrite core is in the center of the coils and is shaped as a square bar. This part cost \$0.73 per piece in lots of 1,000

See Ref [16] Page 46

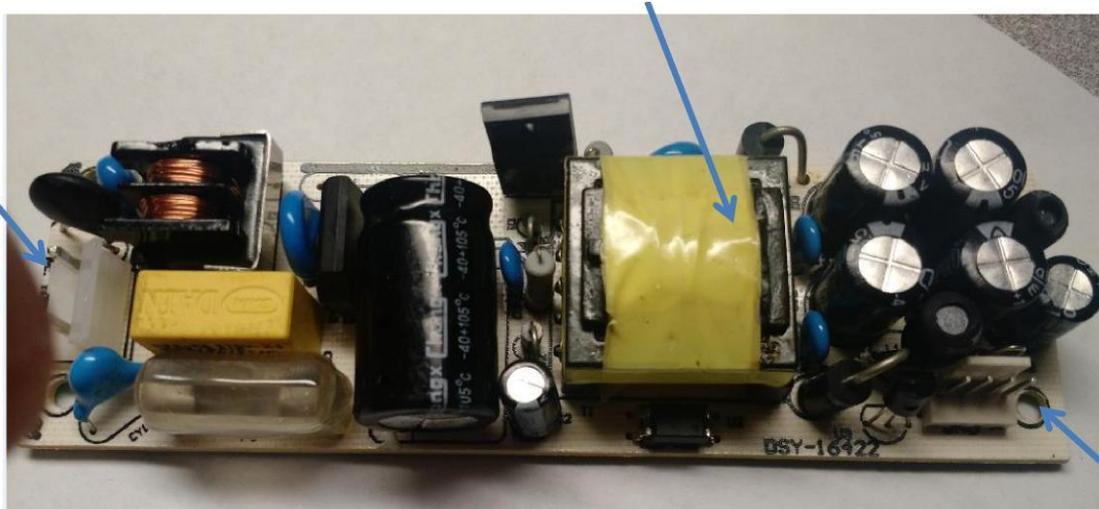
SMPS with Common Mode Filter - Example

Please note this is an example of a UL approved 240 Volt AC to 24 Volt DC SMPS
This design does not inject high frequency oscillations onto the incoming AC line
because it has a common mode filter circuit (left hand side of the circuit board)

Note the DC Out has + - and a ground lead (center) which is connected to a true ground

Transformer that converts 240 volts to 24 volts

AC In



DC Out

See Ref [16] Page 46

ITRON Radios Characteristics - Frequency Hopping Radio Signals

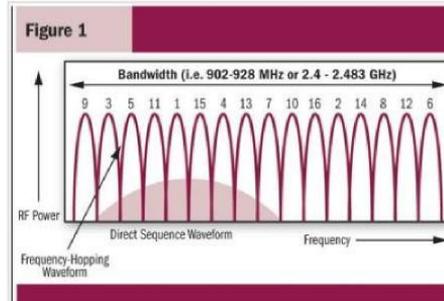
“Spread Spectrum” is a frequency hopping technique invented by the famous 1940’s actress “Hedy Lamar” and sends “packets” of information. It was developed to foil the enemy radio signals from blocking our proximity sensing anti-aircraft shells in WWII.

Frequency Hopping is a technique to avoid collisions of transmitted signals, so the first packet of data will be sent to a random channel in the frequency range. If it senses that there was a collision it shifts the frequency until it is successful in sending the data packet, then the process starts all over again for the next packet. Packet size can vary from 576 bytes to 1500 bytes,

ITRON does not disclose the packet size it uses. As the number of meters increase the signal experiences a lot of collisions causing retransmissions

The number of transmissions increases as the number of nodes in the network increases, the result is a type of radio immersion of the entire neighborhood, sometimes called a “Radio Soup” environment leaving no safe harbor from the microwave radiation.

Packets are sent approximately every 4-5 seconds all day based on observations of readings. The daily upload of the meter data usually occurs each night taking from one to two hours long.

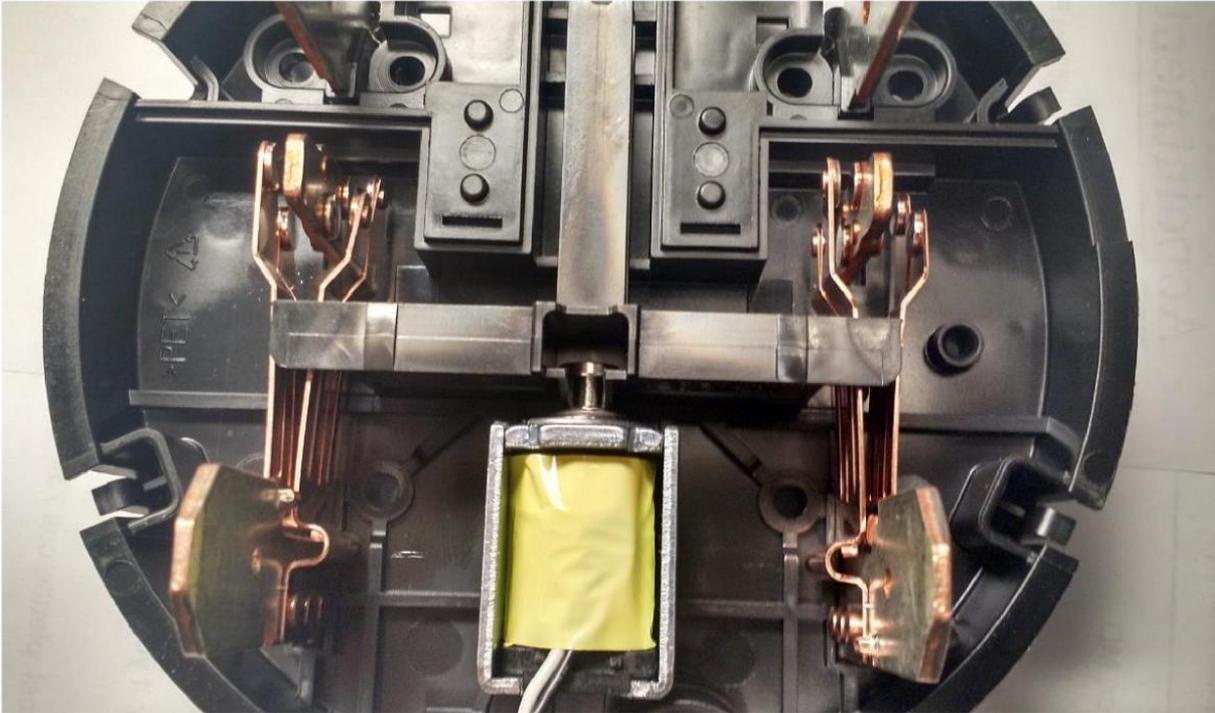


See Ref [16] Page 46

The ITRON Meter Power Disconnect



24 Volt
Power
Disconnect
Solenoid



If you slide this plastic lever (with the notch in it) you break the contacts and shut of your
27

power

5. Produce evidence/ proof that DLC's SM need not to be replaced at regular intervals. (My current analog meter has been on my house since I moved in – in July 1971 and probably was the same one, when installed on the house when it was built in 1959 Produce a written Warranty and Guarantee for a life expectancy at least 10 years for DLC's SM.

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. Furthermore, the Request asks Duquesne Light to prove a negative, which is a logical impossibility. Finally, to the extent the Request asks Duquesne Light to provide a legally-operative Warranty, discovery is not the appropriate forum in which to make such a request, and Duquesne Light is not obligated to provide such a Warranty.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. There is no realistic expectation that these new meters will last 20 years or more. Miniaturization of electronics constantly leaps forward in reducing the size of an electronic design. This causes the industry to obsolete certain logic chips sets within one or two years from the date of the original start of manufacturing. With obsolescence comes the risk that direct replacement of a meter after 2 years with the same components is unlikely or the required software compatibility will be restrained. Electronic circuits do fail under the extremes of temperature and humidity. The meters are not hermetically sealed to keep out dust and moisture. There are conformal coatings on the circuit boards which indicates they had issues with moisture on the chip sets in the past, the whole board is not covered with a conformal coating but only on special areas. The number of incoming power surges hitting the Varistor on the power supply board will degrade this component over time to where it no longer protects the circuit and increasingly permits power line quality issues to enter the circuit boards. This can cause an exacerbation of the "Dirty Electricity" issues already present or circuit board failures. The LCD will be hard to read after exposure to temperature extremes and humidity in less than 5 years. LCD's are very sensitive to low temperatures, and they dim considerably below 0 ° F

See Ref [16] Page 46

Meter accuracy and your bill

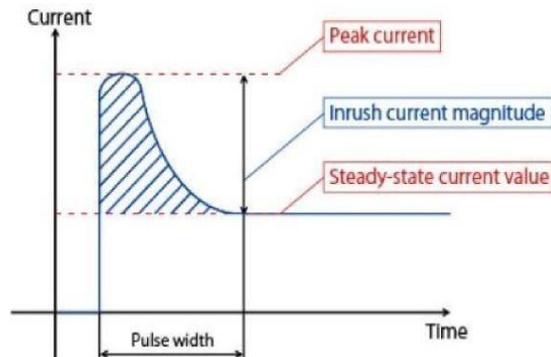
- The AMI meter is “accurate” based on the Navigant Consulting Report in 2010 and referenced on the ITRON web site. However, within this report the extremely high rate of billing complaints after the installation of the new meters is evident and explanations were difficult to verify as to their cause. The number of complaints was dramatic This test was done in Texas with temperature ranges from ~30 to ~88 degrees.
- Control testing conditions were not well explained in this report, in particular the type of load the meter accuracy was compared to.
 - Restive loads such as light bulbs
 - Inductive loads such as electric motors
- No discussion on how the meters did the kWh calculation, with averaging of samples over a fixed period of time?
- The meter electronic sensor used to calculate power is called the “Hall Effect Sensor” in the AMI meter versus the “Eddy Current” sensor in the Analog meter. Both methods are accurate and within ANSI standards of 2%. What is very different in the AMI meter is the algorithm used to calculate the readings from the sensor into the indicated display. The analog meter is a type of “totalizing” meter just like a gas pump. The AMI meter uses sensor data, which has to be averaged by a mathematical calculation and then registered into memory and on the

LCD display. The gas pump has a weight and measures standards sticker to assure the Consumer they are getting what they paid for, there is no such concept on an AMI meter.

See Ref [16] Page 46

Meter accuracy and your bill

- Navigant Consulting's Report in 2010 is referenced on the ITRON web site. But there were two different meter manufacturers ITRON and Landis + Gyr. The report did not differentiate performance characteristics between manufacturers
- The Navigant Report tried to explain the billing inaccuracies using complex mathematic explanations and reference to "degree" days but the degree variance was typically within 10% year over year, yet this did not explain power bills increasing as much as 25%-40% higher year over year.
- Their test lab control set setups were done at room temperatures as shown in pictures in the report
- There was no field test at various temperatures for accuracy



Electric Motor Current Draws are different than a light bulb

- There is a short .5 to .6 sec burst of current needed to start an electric motor, so a 5 amp rated motor may need 8-9 amps to get rotating up to rated speed
- If the utility is measuring peak current and averaging this over a window of time you can skew the average when you combine the two types of loads.
- Only the utility knows the math in the software
- If you have "Energy Star" refrigerator/freezer it starts and stops frequently, and so the skew of the average is worse, imagine the impact on the average reading after 3-5 motors start and stop in the sample window.

See Ref [16] Page 46

Power Required to Run the AMI Meter

Data Source – DTE Energy Insight Phone Application

Test Conditions: Main breaker ON, All branch circuits OFF

Home Unoccupied – Skipped dates are from periods when we were moving into the home and we excluded any dates when we needed to turn on a light bulb

Date	kWh Consumed by the AMI Meter
October 17, 2016	1.8 kWh
October 18, 2016	3.0
October 19, 2016	2.2
October 20, 2016	3.2
October 21, 2016	2.1
October 25, 2106	2.4
October 26, 2016	2.2

October 27, 2016	2.1
October 28, 2016	2.3 kWh
Average Daily AMI kWh Use	2.37 kWh @ 0.13 per kWh = \$0.31

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Meter accuracy and your bill – Power Required to Run the AMI Meter

Based on real collected data, not extrapolated calculations

- At ~ \$.31 per day cost just to run the AMI meter this equals an added \$113.15 per year per customer
- If you consider the total annual AMI kWh use for the 1.2 M DTE customers this is an added \$13.578M in added revenue to DTE to run the AMI meters, fully paid by the customer base
- If you also consider the Annual kWh consumed by just running the AMI meters in the 1.2 Million Customers in the DTE territory this equals an added 103.806 Million kWh in required added generation capacity just to run the AMI meters.

Conclusion: There is absolutely no evidence the AMI Meter program saves energy in kWh or money, in fact it only drains the bank accounts of the consumer and pads the revenue of the utility.

The only way the AMI program will save kWh's is to use it to ration power to consumers via Demand Response/Time of Use rate structures at 4-8 X normal rates where the elderly, disabled and young families with a parent and small children at home can least afford it or do without power during the Demand Response/Time of Use period. Under this scenario the AMI program is the largest fleecing of the consumer to ever exist.

6. Provide evidence/proof that SM cannot be electrically "hacked".

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. Furthermore, the Request asks Duquesne Light to prove a negative, which is a logical impossibility.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. "Hacking" is not a "logical impossibility". Below is the answer from the EVALUATION of the ITRON Open Way AMI Meter

See Ref [16] Page 46

ITRON Meter Vulnerability - Can the radio signals be hacked?

The 902-928 MHz and the HAN ZIGBEE 2.4 GHz radio packets are AES 128 encrypted. Therefore, it is unlikely that a hacker would take the steps needed to attack your home. It would not gain them anything financially.

The Collector which is the most vulnerable component (Weak Link) is the regional repeater/collector. While this device cannot be easily hacked, it can be attacked. I do not condone in any way any actions but any terrorist group can obtain a shotgun and disable it by shooting it. It is unclear what individual homes would experience regarding their power, it may cause a massive power shutdown due to a "false Positive" to a tampering of the meter.

Another method would be to design a broadband RF interference transmitter operating at >30 Watts and flood the repeater with signals so it cannot collect data.

See Ref [16] Page 46

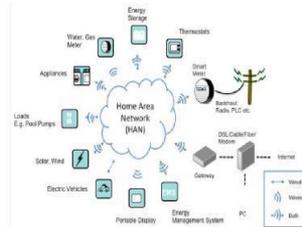
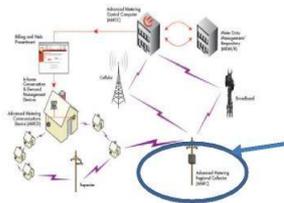
Slide Privacy - Can your personal information be hacked?

The 902-928 MHz radio sends personal usage on a 15-minute interval to the utility. The signal can determine if you are at home, when you use your power the most, and whether the load is resistive (Light Bulbs) or inductive (electric motors).

With the Energy Bridge device, they can determine the model number and serial number of the appliances you have, turn off your appliances remotely without your permission and share your personal information with third parties you will not be able to control. They also can connect to your Smart TV and scan what TV shows you watch and report that to third parties. With a Smart TV they can actually listen to your conversations. Spam and fishing attacks will likely expand

With the Energy Bridge device, they can connect to your home network router and listen to your internet traffic such as VOIP phone conversations, emails, streamed downloads etc. Since they will be directly connected to the router via a wired connection and do not need encryption to detect the traffic.

Each Meter also has a infrared LED at the top which flashes more frequently as you use more power. If you have a night vision goggle you can readily see this. Police can use this as an indicator of a possible illegal drug growing indicator. Thieves can use this to determine if a house is not occupied at the time.



7. Provide proof and guarantee that DLC's SM cannot be accessed via wireless and/or switched off at will, by DLC employees or any of its affiliates.

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. To the extent the Request asks Duquesne Light to provide a legally-operative guarantee, discovery is not the appropriate forum in which to make such a request, and Duquesne Light is not obligated to provide such a guarantee. Finally, to the extent a response is required, Act 129 of 2008 and corresponding PUC Orders require Duquesne Light's smart meters to be capable of remote connecting and disconnecting electric service. Duquesne Light's smart meters are capable of remote connection and disconnection.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. FACT: Based on ITRON's White Paper "Service-Limiting Functionality with OpenWay" [14] and I quote "The service-limiting functionality of the OpenWay CENTRON® meter allows a meter to be automatically and remotely disconnected if a preconfigured demand threshold is exceeded. When used in conjunction with the rest of the OpenWay system, this functionality can be used for demand control and response efforts".

9. Provide proof and guarantee that DLC's SM is in compliance with Public Law 90-602 dated October 18, 1968.

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence. The Request asks for a legal conclusion, not facts. To the extent the Request asks Duquesne Light to provide a legally-operative guarantee, discovery is not the appropriate forum in which to make such a request, and Duquesne Light is not obligated to provide such a guarantee.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. See Public Law 90-602

Not only from ionizing radiation, but also from non – ionizing radiation there is nothing in DLC statements or responses or has been released by the FCC which guarantees that the general public is being protected from these non-ionizing radiations being given off by these wireless Devices – the FCC has not even adequately addressed the question the non- ionizing issue.

Radiation Control for Health and Safety Act of 1968 was an amendment to the Public Health Service Act mandating performance standards for electronic products susceptible of electromagnetic radiation or radiation emissions. The United States statute established provisions involving research and development programs for the studies of electromagnetic shielding, ionizing radiation, non-ionizing radiation, and exposure assessment to humans.

The H.R. 10790 legislation was passed by the 90th United States Congressional session and enacted into law by the 36th President of the United States Lyndon B. Johnson on October 18, 1968.

10. Provide all pertinent data of DLC's SM recording and transmission capabilities of the extent of the data that will be recorded, stored and shared and/or the purpose to which the data will and will not be put.

Response: Duquesne Light objects to this Request on the grounds that it is unduly burdensome, Duquesne overly broad, vague, and not reasonably calculated to lead to the discovery of admissible evidence.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. As a rate paying customer I have the right to demand that the unauthorized data collection be made available to me.

11. Provide the encryption or security methods used for DLC's SM.

ANSWER: With respect to Duquesne Light's Smart Meter system, the system uses advanced and open standard that have been approved internationally Standards and Technology and the data encryption and authentication techniques by bodies such as the National Institute of National Security Agency.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer.

Per ITRON's own documentation, all Utility Companies who install SM around the country, have placed specific requirements for the imbedded software into the meters they use in their respective communities. Now I know why there are over 500 computer nerds working at Oracle – they need to write “software” - so the utility companies can “harvest” the information they from the consumers home via the Smart Meter. Thusly, Utility companies are no longer primarily an electric company, but have made the trans-formation to being a data mining company. As such they have announced plans to be able to control the use of all appliances and all other electric devices in the home. This is NOT the function of a PUBLIC utility, they are NOT eligible for protection by the Pennsylvania Public Utility Commission, and are NOT protected by the administrative courts of the same. They are rouge, outside the jurisdiction of said Commission. Any contract that invades the sanctity of the home must necessarily be a private contract, not a public contract. It is not in dispute that any public or quasi-public offering must respect the sanctity of the home.

12. Provide records of actual cost of DLC SM and its LifeCycle. How long will it last?

ANSWER: This request seeks confidential information and privileged trade secret information. The cost of the smart meters is part of the purchase order between Duquesne Light and Itron, which is confidential. Therefore, this information is not produced as doing so would violate the confidentiality terms of the purchase order. By way of further response, the expected life as depreciated by Duquesne Light is 15 years.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. Those meters were paid for by public grants, and DLC is posing as a public utility, and the public deserves to know the use of those grants. The public further deserves to know the finances of a public utility, as public utilities are protected from competition by the monopoly given them over their territory. Even so, it is not in dispute that the weapons provided by Itron and deployed by DLC are being used to promote the depopulation proclaimed in the United Nations document "Agenda 21", signed by President Bush in 1992. [15] This is contrary to the intent of Act 129 of 2008, and contrary to the various Federal acts that provide for the funding of the grants that in part funded the "smart meter" deployment. DLC must provide the financing records or be compelled to refund the grant funds they received that in part funded the deployment of the Itron weapons.

15. In reply to Dr. Mezei "Sources of Scientific Evidence for a Weight-of-Evidence Review"
I refer to Exhibit B & C.

Response: Duquesne Light objects to this Request on the grounds that it is ambiguous, incomprehensible, and vague to the point that Duquesne is unable to prepare a meaningful response.

OBJECTION: Weight-of-Evidence is hogwash, I have introduced in documents listing over 400 non- paid physicists, scientist, epidemiologist's engineers and the list attached below goes on, all of whom are concerned non-paid members of society looking out for the health and well-being of humanity. I have presented a number of exhibits from well-established scientists and epidemiologists who have published papers saying just the opposite. So how did he "establish" his opinion? He listed in in his "Evaluation of the Complaint" Page 8-1 that I had presented " Non-peer reviewed documents" which is not true, see Page 12 of First set of Discovery Request Exhibit B Studies showing Biological effects of RR on living tissue Page 17 Exhibit C which lists additional peer-reviewed references citing an International Appeal of scientists calling for protection from Non-ionizing EMF (see Motion to Compel Attachment No 1 on Page 46

attached below) The sheer **number** of scientist listed in above exhibits should more the fulfill the Weight-of-evidence requirement. What exactly did Dr. Mezei base his assessment on? DLC bases its answers on assumptions and supposition. Yet DLC complains that all my evidence is based on assumptions and are hypothetical. Though there is no material difference between DLC's and my evidence. So, again your response that your "expert report of Gabor Mezei, speaks for itself, is ludicrous. It does not answer my question

Commented [NS3]:

See Ref [16] Page 46

ITRON AMI Meter Life Expectancy

New to the home consumer is the deployment of an electronic power meter on the exterior of the home. There is no realistic expectation that these new meters will last 20 years of more.

The miniaturization of electronics constantly leaps forward in reducing the size of an electronic design. This causes the industry to obsolete certain logic chips sets within one or two years from the date of the original start of manufacturing.

- With obsolescence comes the risk that direct replacement of a meter after 2 years with the same components is unlikely or the required software compatibility will be restrained.
- Electronic circuits do fail under the extremes of temperature and humidity. The meters are not hermetically sealed to keep out dust and moisture. There are conformal coatings on the circuit boards which indicates they had issues with moisture on the chip sets in the past, the whole board is not covered with a conformal coating but only on special areas.
- The number of incoming power surges hitting the Varistor on the power supply board will degrade this component over time to where it no longer protects the circuit and increasingly permits power line quality issues to enter the circuit boards. This can cause an exacerbation of the "Dirty Electricity" issues already present or circuit board failures.
- The LCD will be hard to read after exposure to temperature extremes and humidity in less than 5 years. LCD's are very sensitive to low temperatures, and they dim considerably below 0 ° F

16. In reply to Dr. Cotts "Executive Summary" page viii, provide date, time and location of alleged RF source and substantiate with date stamped meter readings near my home.

ANSWER: The information used by Dr. Cotts in his investigation was provided to him through Complainant's responses to Duquesne Light's discovery requests. Dr. Cotts was not inside Complainant's home or any neighbor's home.

OBJECTION: I am objecting to DLC reply on the grounds that it does not answer the question, but is merely a response, which is not an answer. None of the information that I request was answered.

No dates, time or location where given. The answer was pure conjecture and – again- based on DLC's assumptions. No ACTUAL data has been obtained. Also, please define what makes Dr. Cotts, a paid contractor an "Expert". DLC bases its answers on assumptions and supposition. Yet DLC complains that all my evidence is based on assumptions and are hypothetical. Though there is no material difference between DLC's and my evidence.

In conclusion:

Smart Meter Privacy Invasions by Investor Owned Utilities (IOUs) such as Duquesne Light Company.

It is broadly stated that the Fourth Amendment applies only to acts by the government. However, if an investor owned utility (IOU) company is ordered by a state public utility commission to install privacy invading smart meters as part of a mandate or otherwise ordered to charge a penalty fee for those refusing smart meters, then the private utility arguably becomes an **"instrument or agent of the state"** and must abide by Fourth Amendment provisions. The legal argument runs along the lines that if the state public utility commission orders the utility to record larger quantities of data than is customary, then Fourth Amendment provisions apply. A key point in the argument is that the "customary" data set is that necessary for calculating a monthly utility bill, i.e., a once per month meter read. When a private "investor-owned" utility is ordered by a state public utility commission to install granular data collecting smart meter technology and/or to charge tariffs for those customers refusing such installations, then such orders constitute

“state action.” As such, the state utility commission and private utility company are now subject to the limitations of the Fourth Amendment.

When the “state actions” are further determined to constitute an *unreasonable* invasion of privacy, then those organizations have violated the Fourth Amendment rights of the affected customers.

In DLC’s letter dated 5/31/2016 DLC states (abbreviated) ***“that I would be automatically enrolled in an online portal program which will be provided by Opower unless notified within 30 days”*** which according to my research most DLC never responded too, given DLC to right to collect private data to be sold to the highest bidder.

see Ref [16] Page 46

Overall Observations of the ITRON Meter

- The privacy and security of the full AMI program is another exposure that has not been fully disclosed to the consumer. The broad-based scenario of incorporating the Internet of Things (IoT) in the home environment and linking it to a meter creates increased exposure of personal information to third parties without consent. The fact that the consumer agreed to the service agreement of the utility for provision of electricity also implies the consumer has by default agreed to the disclosure of personal information to places not named should be a large concern. Image if this was the case when you buy gas for your vehicle. Should the gas provider require you to ID the type of vehicle you are driving before the pump is tuned on?
- The utility consistently states the RF emissions of the meters meet FCC requirements, this is a misleading statement, FCC requirements are for the effects of enough ionizing power to cause the brain to heat up 1° C. There have been over 800 peer reviewed independent studies not funded by the industry that have linked this type of low level non-ionizing RF radiation to a group of diseases including brain cancer, Parkinson's, Alzheimer's, high blood pressure, Tinnitus, skin rashes and open sores as an example. Industry funded studies do not concur with these findings so this adds to confusion on the health effects attributed to the meters. I have personally met many of the affected consumers and this is no joke or set of psychological conditions.
- The fact that there is a set of circuit boards in a power meter at all is a large risk, the circuit boards would not be able to withstand a lightning strike or a power surge without an explosive reaction and likely melting of the circuits. This

would lead to total destruction of the unit and lead to a possible fire.

Does a AMI meter benefit the consumer?

The utility is passionate about the need for AMI.

- Their primary benefits are: – Reduction in meter reader workforce costs
- There has been no rebate or discount to the consumer for this savings the utility gains, where did this savings go? – Ability to monitor the expanse of outages
- This may marginally benefit the consumer but communications of their outage existed before via phone anyway.
- However, the savings to the utility has never been remunerated and returned to consumers. – Ability to turn off services to nonpaying consumers without out a “Truck Roll”
- This will save the utility money, yet the savings are not passed on to the consumer, every time a truck roll is avoided the utility should be sending a check equal to that costs savings to the consumer base. – Ability to save energy
- The AMI meters themselves increases demand for energy capacity and costs the consumer approx.115.00 per year in added costs they were never told about. In addition, there is a question of fairness in reporting how inductive loads are calculated in the meter readings. The lack of transparency in the data manipulations for inductive loads versus resistive loads has never been elaborated by the utility.
- The only way this will save energy is to require 100% compliance to Time of Use/Demand response to ration power to consumers. Demand Response policies have never been explained and enumerated to the consumer and many of these policies are already in the pipeline. Federal law requires that if DR is made available in a service area it is to be 100% enforced. – Ability to incorporate alternative energy sources
- This only applies to the utility. The utilities are blocking consumers the ability to sell back to the grid. The utilities have increased their rates to build alternative energy sources and increased their billing to pay for these facilities.

- However, they are also charging the current rates to the customer for what they now obtain for free. – Ability to dynamically manage energy demands
- The use of a network topology for meter reading is a benefit to the utility to possibly obtain real time information to match capacity to demands. However, the AMI system is only communicating power consumption on a daily basis so how is this to become a real time system unless the AMI meters begin transmitting demand at an almost constant rate. This has never been communicated to the consumer. The load of data collected if in a real time system would overwhelm the ability to process the data. If the intent is managing capacity to demand is the reason for deploying AMI then collecting the data once a day will not ever accomplish the goal to match capacity to demand. This is the critical flaw in the AMI concept at the point of use and the whole reasoning to deploy AMI and fails to accomplish this goal of dynamically managing the grid when only collecting data once a day. Since the AMI enabled Gas meters rely on the electric AMI meter, and the AMI electric meter justification is dubious with only daily readings the sum of the benefits of AMI is only related to elimination of manual meter readers, which has not resulted in any consumer savings. – The need for AMI to reduce energy consumption
- The most recent report from Michigan LARA estimate from 2014-2015 year predicts residential electric energy consumption as flat, with commercial consumptions reducing and industrial sectors growing by 3 % with a combined increase of 0.8 %. The revised report for 2016-2017 still states the growth as lower than historic values. **Why do we need hundreds of millions of added costs to support a flat demand curve?**

In light of this your honor, the complainant respectfully requests that you compel DLC to fully and completely answer all of the enclosed questions that where from my First and Second set of discovery for which they provided inadequate answers.

Respectfully yours,

Norbert Slivinski

References:

[1] CBS Pittsburgh. (Internet). (2016). *Smart Meters Pose Ongoing Issues for Duquesne Light Customers.*

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[2]] Dr. Devra Davis <https://www.youtube.com/watch?v=33zRLZ-QaJY>

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https://www.energystar.gov/ia/partners/publications/pubdocs/Overview%20of%20Achievements_508Compliant.pdf

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Available at: http://www.edisonfoundation.net/iee/Documents/IEE_BenefitsofSmartMeters_Final.pdf

[5] FirstEnergy Communications Department. *Smart Meter Radio Frequency Fact Sheet.* (Internet). (2014). Available at:

https://www.firstenergycorp.com/content/dam/customer/get-help/files/PASmartMeter/SM_rffactsheet.pdf

[6] International Agency for Research on Cancer. (Internet). (2011). *Press Release No. 208 31 May 31, 2011: IARC Classifies Radiofrequency Electromagnetic Fields As Possibly Carcinogenic To Humans.* Available at:

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[7] Falcioni, L., *Environmental Research. Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station environmental emission.* (Internet). (2018). Available at:

<https://doi.org/10.1016/j.envres.2018.01.037>

- [8] American Academy of Environmental Medicine. (Internet). (2012). American Academy of Environmental Medicine Recommendations Regarding Electromagnetic and Radiofrequency Exposure. Available at: <https://www.aemonline.org/pdf/AAEMEMFmedicalconditions.pdf>
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- [12] <https://www.spandidos-publications.com/10.3892/ijo.2017.4046>
- [13] Naval Study: http://www.justproveit.net/sites/default/files/prove-it/files/military_radiowave.pdf
- [14] Available at: <https://www1.itron.com/PublishedContent/Service%20Limiting%20Functionality%20with%20OpenWay.pdf>
- [15] U.N. <http://www.un.org/documents/qa/conf151/aconf15126-4.htm>
<https://www.disclose.tv/agenda-21-the-plan-to-depopulate-95-of-the-world-by-2030-313560>
- [16] NOTE: All slides – and are taken from “Evaluation of the ITRON Open Way AMI Meter” by William Bathgate
<https://smartmeterharm.org/2018/02/25/electrical-engineer-explains-to-michigan-legislature-why-smart-meters-are-causing-high-bills-video/>

Motion to compel Attachment No 1

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

NORBERT SLIWINSKI, Complainant,

vs.

DUQUESNE LIGHT COMPANY, Respondent.

Docket No: C-2016-2559985

FIRST SET OF DISCOVERY REQUESTS TO REPENDENT

Complainant serves its First Set of Discovery Requests to Respondent pursuant to 52 Pa. Code SS 5.341 and 5.349. In accordance with 52 Pa. Code §§ 5.342 and 5.349(d), Respondent DUQUESNE LIGHT COMPANY, must respond to each discovery request within 20 days after being served with these discovery requests. Respondents responses must be verified in accordance with 52 Pa.Code § 1.36. Norbert Sliwinski reserves the right to serve additional discovery requests.

DEFINITIONS

- A. The terms "You" and "Your" shall mean Respondent DUQUESNE LIGHT COMPANY and any individual acting on their behalf.
- B. The term "Formal Complaint" shall mean the Formal Complaint I filed against Duquesne Light with the Pennsylvania Public Utility Commission, Docket No. C-2016-2559985.
- C. The term "Document" shall mean any written, typed, printed, graphic, or recorded material that is currently in Your possession, custody, or control or that was formerly in your possession, custody, or control. A Document is in Your "control" if You have ownership, possession, or custody of the Document or if You have the right to secure the Document or a copy from any person or entity that has possession of it. The term "Document" includes, but is not limited to, electronic mail or email, text messages, social media postings, comments, and messages, medical records, articles, studies, word processed documents, digital presentations, facsimiles, instant messages, calendars, diaries, appointment books, agendas, journals, drafts, voicemail messages, post cards, post-it notes, reports, logs, message slips, invoices, checks, paystubs, letters, memoranda, agreements, contracts, tax returns, bank statements, spreadsheets, video recordings, audio recordings, computer programs, printouts, and all other written, graphic, or electronic materials of any nature whatsoever.

INSTRUCTIONS

- A. You must provide all information that is available to You. This includes not only Your personal knowledge but also all information that is reasonable available to You.
- B. You are requested to produce all responsive Documents that are in Your possession, custody, or control. All Documents must be produced in the same order that they are normally maintained. For each Document, identify which specific discovery request it responds to.
- C. If You object to any discovery request, You must explain the reason(s) for Your objection.
- D. If You do not have any Documents in Your possession, custody, or control that are responsive to a discovery request, You must say so.
- E. In responding to these discovery requests, include all Documents that were obtained by You and anyone acting on Your behalf. If You state that any Document(s) are not within Your possession, custody, or control, describe what effort You made to locate each such Document.
- F. If You state that a Document is not under Your control, identify who has control of the Document and state the Document's location.
- G. You must produce each Document in its entirety even if only part of the Document is responsive to the document request.
- H. The term SM in this document refers to DLC's Itron SK9AMI7 HW 3.1 OpenWay CENTRON Single Phase Smart Meter.

My response is in part new material as well as my response to the two Expert Witness introduced the second set of Discovery. They are in no particular order, since the Report's of said Experts was not in a Q&A form.

1. Provide material/evince that the material I represented in my discovery response does not provide the basis for a valid conclusion. In your response and the Report of Gabor Mezei, he expresses only his **Opinions** but offers no evidence documents, pictures, videos to substantiate his Opinions. Mirriam Webster defines opinions as follows:

1a : a view, judgment, or appraisal formed in the mind about a particular matter

We asked them for their opinions about the new stadium.

b : APPROVAL, ESTEEM

I have no great opinion of his work.

2a : *belief stronger than impression and less strong than positive knowledge person of rigid opinions*

b : *a generally held view news programs that shape public opinion*

3a : *a formal expression of judgment or advice by an expert*

My doctor says that I need an operation, but I'm going to get a second opinion.

b : *the formal expression (as by a judge, court, or referee) of the legal reasons and principles upon which a legal decision is based*

The article discusses the recent Supreme Court opinion.

Opinions are not facts.

2. Provide a detailed response to each of the **peer-reviewed** Governmental Study [Chapter 1. A. – Q. highlighted in yellow] regarding biological effects of RF radiation on living tissue: by the U.S. Office of Naval Medical research done in 1971
3. Provide verifiable (by a non-partisan, impartial witness/observer) evidence/proof that DLC's SM do not have over 100 adverse health effects in light of the studies done by experts below.

NAVAL MEDICAL RESEARCH INSTITUTE Unclassified

Research Report MF12.524.015-0004B Report No. 2 REVISED

NATIONAL NAVAL MEDICAL CENTER BETHSDA, MARYLAND 20014

BIBLIOGRAPHY OF REPORTED BIOLOGICAL PHENOMENA ('EFFECTS') AND CLINICAL MANIFESTATIONS ATTRIBUTED TO MICROWAVE AND RADIO-FREQUENCY RADIATION by Zorach R. Glaser, Ph.D. LT, MSC, USNR First published October 4, 1971

THIS DOCUMENT HAS BEEN APPROVED FOR PUBLIC RELEASE AND SALE; ITS DISTRIBUTION IS UNLIMITED.

More than 2300 references on the biological responses to radio frequency and microwave radiation, published up to April 1972, are included in this bibliography of the world literature. Particular attention has been paid to the effects on man on non-ionizing radiation at these ' frequencies. The citations are arranged alphabetically by author and contain as much information as possible so as to assure effective retrieval of the original documents. Soviet and East European literature is included in detail. An outline of the effects which have been attributed to radio frequency and microwave radiation is included as Chapter I. The revised report (which supersedes DDC report AD#734391) is updated with the inclusion oi three supplementary listings and has incorporated many corrections and additions to the original 2100 citations.

CHAPTER I

Reported Biological Phenomena (*Effects') and Some Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation

A. Heating of Organs* (Applications: Diathermy, Electrosurgery, Electrocoagulation, Electrodesiccation, Elytrotomy)

1. Whole Body (temperature regulation defect), Hyperpyrexia
2. Skin
3. Bone and Bone . Marrow
4. (a) Lens of Lye (cataractous lesions - due to the avascular nature of the lens which prevents adequate heat dissipation)
 - (i) Corneal damage also possible at extremely frequencies
5. Genitalia (tubular degeneration of testicles)
6. Brain
7. Sinuses
8. Dental Implants (burns near hip pins, etc.)

The effects are generally reversible except for 4a.

B. Changes in physiologic function

1. Striated Muscle Contraction
2. Alteration of Diameter of Blood Vessels (increased vascular elasticity), Dilation
3. Changes in the Oxidative Processes in Tissues and Organs
4. Liver Enlargement
5. Altered Sensitivity to Drug Stimuli
6. Decreased Spermatogenesis (decreased fertility, to sterility.)
7. Altered Sex Ratio of Births (more girls!)
8. Altered, Menstrual Activity
9. Altered Fetal Development
10. Decreased Lactation in nursing Mothers
11. Reduction in excretion (*,a+ excretion, via urine output)
12. Altered Renal Function (decreased filtration tubules)
13. Changes in Conditioned Reflexes
14. Decreased Electrical Resistance of Skin
15. Changes in the Structure of Skin receptors of touch (a) i.e., and (b) blood-Carrying Systems:
16. Altered Blood Flow Rate

* It is also reported that low levels of irradiation produce a cooling effect - "hyper compensation".

17. Alterations in the currents (EEG?) of the Cerebral Cortex (in animals)
18. Changes in the Rate of Clearance of Tagged Ions from Tissue
19. Reversible Structural Changes In the Cerebral Cortex and the Diencephalon
20. Electrocardiographic (EKG) Changes
21. Alterations In Sensitivity to Light, Sound, and Olfactory Stimuli
22. Functional (a) and Pathological (b) Changes in the Eyes: (a) decrease in size of blind spot, altered color recognition, changes In Intraocular pressure, lacrimation, trembling of eyelids; (b) less opacity and coagulation, altered tissue respiration, and altered reduction-

- oxidation processes 23. Myocardial Necrosis
24. Hemorrhage in Lungs, Liver, Gut, and Brain] at Fatal Levels
25. Generalized Degeneration of all Body Tissue] of Radiation
26. Loss of Anatomical Parts
27. Death
28. Dehydration
29. Altered Rate of Calcification of Certain Tissue

C. Central Nervous System Effects

1. Headaches
2. Insomnia
3. Restlessness (Awake and During Sleep)
4. Electroencephalographic (EW) Changes
5. Cranial Nerve Disorders
6. Pyramidal Tract Lesions
7. Conditioned Reflex Disorders
8. Velocimetric Action of the Heart; Sympatico mimetic Action
9. Seizures, Convulsions

D. Autonomic Nervous System Effects

1. Neuro-vegetative Disorders (e.g., alteration of heart rhythm)
2. Fatigue
3. Structural Alterations Lu the Synapses of the Vague Nerve
4. Stimulation of Parasympathetic Nervous System (Bradycardia), and Inhibition of the Sympathetic Nervous System

E. Peripheral Nervous System Effects

Effects on Locomotor Nerves

F. Psychological Disorders ("Human Behavioral Studies") - the so-called "Psychophysiological (and Psychosomatic) Responses"

1. Neurasthenia- (general "bad" feeling)
2. Depression
3. Impotence
4. Anxiety
5. Lack of Concentration
6. Hypochondria
7. Dizziness
7. Hallucinations
9. Sleepiness
10. Insomnia
11. Increased Irritability
12. Decreased Appetite
13. Loss of Memory
14. Scalp Sensations
15. Increased Fatigability
16. Chest Pain
17. Tremor of the Hands

G. Behavioral (Changes (Animal Studies)

Reflexive, Operant, Avoidance, and Discrimination Behaviors

H. Blood Disorders

(v = in vivo)

(v = in Virto)

Changes in:

1. Blood and Bone Marrow
2. Phagocytic (polymorphs) and Bactericidal "func ,v)
3. Hemolysis .:(increase), (a shortened lifespan: of Cells
4. Sedimentation Rate (increase), (due to changes in Sedimentation levels or amount of fibrinogen(?))
5. Number of Erythrocytes (decrease), also number of
6. Blood Glucose Concentration (increase)
7. Blood Histamine Content
8. Cholesterol and Lipids
9. Gamma (also α and β) Globulin, and Total Protein Concentration
10. Number of Eosinophils A
11. Albumin/Globulin ratio (decrease)
12. Hemopoiesis (rate of formation of blood corpuscles)
13. Leukopenia (increase in number of x0.ito cells), and Leukocytosis
14. Reticulocytotic

I. Vascular Disorders

1. Thrombosis
2. Hypertension

J. Enzyme and Other Biochemical Changes

Changes in activity of:

1. Cholinesterase (V,v)
2. Phosphatase (v)
3. Transaminase (v)
4. Amylase (v)
5. Carboxydismutase
6. Protein Denaturation
7. Toxin, Fungus, and Virus Inactivation (at high radiation dose levels), Bacteriostatic Effect
8. Tissue Cultures Killed
9. Alteration in Rate of Cell Division
10. Increased Concentration of RVA in Lymphocytes, and Decreased Concentration in Brain, Liver, and Spleen
11. Changes in Pyruvic Acid, Lactic Acid, and Creatinine Exergions
12. Change in Concentration of Glycogen in Liver (Hyperglycemia)
13. Alteration in Concentration of 17- Ketosteroids in Urine

K. Metabolic Disorders

1. Glycosuria (sugar in urine; related with blood sugar?)
2. Increase in Urinary Phenol (derivatives? DOPA?)
3. Alteration of rate of Metabolic Enzymatic Processes
4. Altered Carbohydrate Metabolism

L. Gastro-Intestinal Disorders

1. Anorexia (loss of appetite)
2. Epigastric Pain
3. Constipation
4. Altered Secretion of Stomach "Digestive Juices"

M. Endocrine Gland Changes

1. Altered Pituitary Function

2. Hyperthyroidism
3. Thyroid Enlargement
4. Increased Uptake of Radioactive Iodine by Thyroid Gland
5. Altered Adrenal Cortex Activity
6. Decreased Corticosteroids in Blood
7. Decreased Glucocorticoidal Activity
8. Hypogonadism (usually decreased testosterone production)

N. Histological Changes

1. Changes in Tubular Epithelium of Testicles
2. Cross Changes

O. Genetic and Chromocentric Changes

1. Chromosome Aberrations (e.g., linear shortening, pseudo chiasm, diploid structures, amitotic division, bridging, "sticky" chromosomes, irregularities in chromosomal envelope)
2. Mutations
3. Mongolism
4. Somatic Alterations (changes in cell not involving nucleus or chromosomes, cellular transformation)
5. Neoplastic Diseases (e.g*, tumors)

P. Pearl Chain Effect (Intracellular orientation of subcellular particles, and orientation of cellular and other (non-biologic) particles)

Also, orientation of animals, birds, and fish in electromagnetic fields

Q. Miscellaneous Effects

1. Sparking between dental fillings
2. Peculiar metallic taste in mouth
3. Changes in Optical Activity of Colloidal Solutions
4. Treatment for Syphilis, Poliomyelitis, Skin Diseases
5. Loss of flair
6. Brittleness of flair
7. Sensations of Buzzing Vibrations, Pulsations, and Tickling About the Head and Ears
8. Copious Perspiration, Salivation, and Protrusion of Tongue
9. Changes in the Operation of Implanted Cardiac Pacemakers
10. Changes in Circadian Rhythms

2. What will be DLC's response if your Itron SK9AMI7 HW 3.1 OpenWay CENTRON Single Phase Smart Meter would catch fire, or explode? Will you be financially responsible for the damages caused by fire/explosion, regardless of cause? (Lightning strike, power surge, malfunction of internal components, etc).

3. Provide evidence (Engineering drawings, pictures or videos, showing location of adequately sized surge protector. List part #, Model #, S/N #, Manufacturer's name together with maximum inrush voltage) as installed in DLC's SM.

See report here: <https://www.youtube.com/watch?v=gOqucXzwKkA&t=35s>

4. Produce documented and visual evidence (actual time stamped video) using a FLUKE 215C Oscilloscope - or equal, connected to DLC's SM - recording the electrical sine waveform. Confirming that the DLC's SM does not produce "dirty electricity" or high voltage transients. Above to be performed at a neutral or private lab, not affiliated or owned by DLC.

5. Produce evidence/ proof that DLC's SM need not to be replaced at regular intervals. (My current analog meter has been on my house since I moved in – in July 1971 and probably was the same one, when installed on the house when it was built in 1959) Produce a written Warranty and Guarantee for a life expectancy at least 10 years for DLC's

SM.

6. Provide evidence/proof that SM cannot be electrically "hacked".
7. Provide proof and guarantee that DLC's SM cannot be accessed via wireless and/or switched off at will, by DLC employees or any of its affiliates.
8. Acknowledge that Itron's Publication (Exhibit A) confirms that DLC's SM can attain a 0.58% Duty Cycle. See Exhibit A
9. Provide proof and guarantee that DLC's SM is in compliance with Public Law 90-602 dated October 18, 1968.
10. Provide all pertinent data of DLC's SM recording and transmission capabilities of the extent of the data that will be recorded, stored and shared and/or the purpose to which the data will and will not be put.
11. Provide the encryption or security methods used for DLC's SM.
12. Provide records of actual cost of DLC SM and its LiveCycle. How long will it last?
13. Provide the following information about DLC's SM: intensity of output, duration and frequency of output, and pattern of sending and receiving transmissions to and from all sources
14. In reply to Dr. Mezei "Review of RF Health Studies" pge 17 FCC 2.4 GHz is the absorption resonance (or dielectric loss) of the water molecule making it rotate and vibrate in an electric field and humans are 60-70% water.....
15. In reply to Dr. Mezei "Sources of Scientific Evidence for a Weight-of-Evidence Review" I refer to Exhibit B & C
16. In reply to Dr. Cotts "Executive Summary" page viii and his alleged investigation inside or near my home (was he near a home or inside a home?) - provide date, time, and RF frequency for afore mentioned investigation.
17. In reply to Dr. Cotts "Executive Summary" page viii, provide date, time and location of alleged RF source and substantiate with date stamped meter readings near my home.

Finally:

Produce a response to my suggestion to my reply to your previous set 2nd set of Discovery where I suggested an alternate way of collecting the electrical consumption of the meter. That suggestion was in response to Judge Watson's letter dated March 28, 2018 per § below:

Settlement and Stipulations

The Parties are reminded it is the Commission's policy to encourage settlements. 52Pa. Code 95.231(a). The Parties are strongly urged to seriously explore this possibility. The Settlement Judge Procedure is also available upon consent of the Parties.

If settlement is not feasible the Parties are encouraged to stipulate to any matters they reasonably can in order to expedite this proceeding, lessen the burden of time and expenses in litigation on all Parties and conserve administrative hearing resources. \$ 52Pa. Code \$5.232 and 5.234. All stipulations entered into by the Parties must be reduced to writing signed by the Parties to be bound thereby and accepted into the record during the hearings in this case or prior to the hearing by interim order. An exception to this requirement may occur when circumstances of time and expediency warrant. If so, an oral presentation of a stipulation may be permissible, if accepted and as directed by the Presiding Officer.

Exhibit A

From Itron Whitepaper

Wireless Transmissions:

***An Examination of OpenWay
Smart Meter
Transmissions
in a 24-Hour Duty Cycle***

Jeff French *Applications Engineer*

Mike Belanger *Product Line Manager*

Results

The following graphs and table summarize the results of the data gathered.

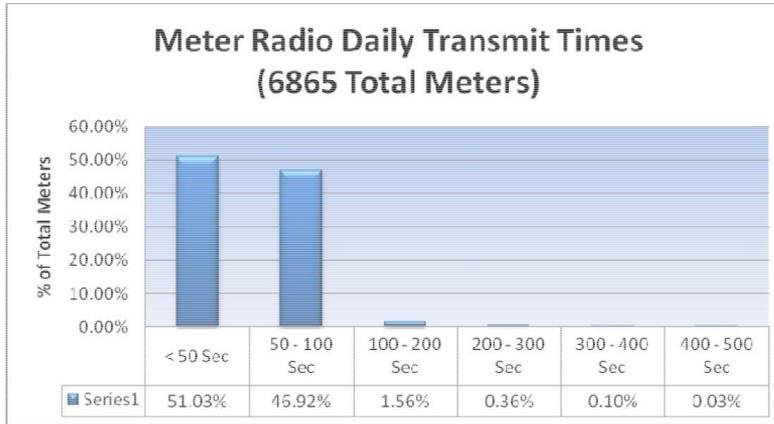


Fig. 1 Daily Transmit Times

Figure 1

Shows that out of the 6,865 meters sampled, 97.95% of the meters transmitted for less than 100 seconds in the 24 hour period (duty cycle of less than 0.12% per day). Examination of Itron OpenWay® Wireless Transmissions in a 24-hour Duty Cycle

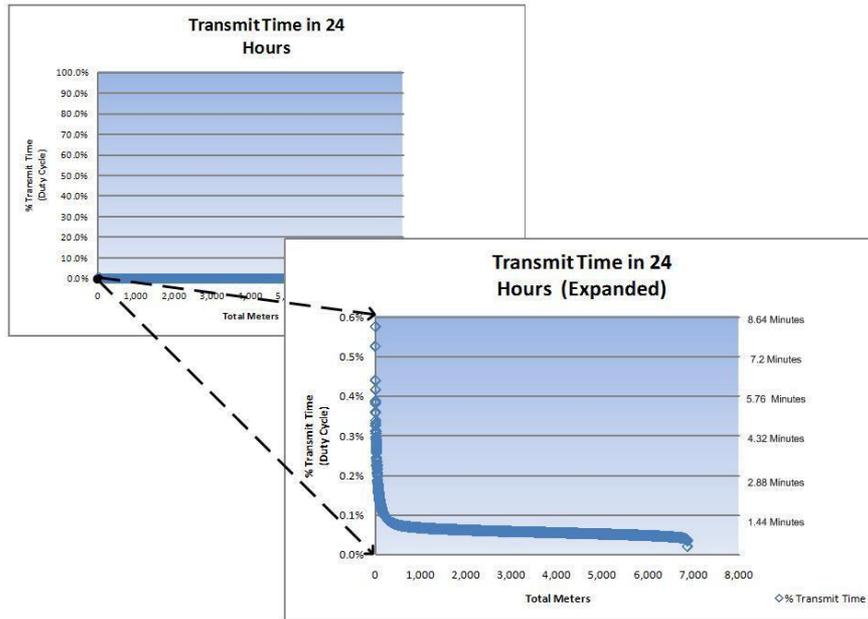


Fig. 2 Percentage of Transmit Time

Figure 2

Represents a scatter plot of all meters transmit times. Because the meters transmit for such a small percentage of the time, the first view appears as a solid blue line resting on the x-axis (below 1%). In the expanded view it is possible to see the maximum daily duty cycle is less than 0.6% (transmit time less than 8.64 minutes/day). This view also shows that 98% of the meters have a daily duty cycle of less than 0.1% (transmit time less than 1.44 minutes/day).

	Duty Cycle	Time
Mean	0.06%	53.14 seconds per day
Maximum	0.58%	497.8 seconds per day
Minimum	0.02%	18.31 seconds per day
Median	0.06%	49.81 seconds per day

Fig. 3 Transmit Time Statistics

The table above (*Figure 3*) shows that meter emission times vary, but even the maximum transmission represents less than 1% of the 24-hour period. Median and Mean (or average) times are relatively close together, which indicates the absence of many meters on the extreme ends of the range.

Exhibit B

Peer-reviewed references

STUDIES SHOWING BIOLOGICAL EFFECTS OF RADIOFREQUENCY RADIATION ON LIVING TISSUE:

Human Studies:

Abu Khadra, K. M., Khalil, A. M., Abu Samak, M., et al. (2014). Evaluation of selected biochemical parameters in the saliva of young males using mobile phones. *Electromagn. Biol. Med.*32:72-76.

Garaj-Vrhovac, V., Gajski, G., Paianin, S., et al. (2011). Assessment of cytogenetic damage and oxidative stress in personnel occupationally exposed to the pulsed microwave radiation of marine radar equipment. *Int. J. Hyg. Environ. Health.* 214:59-65.

Hamzany, Y., Feinmesser, R., Shpitzer, T., et al. (2013). Is human saliva an indicator of the adverse health effects of using mobile phones? *Antioxid.Redox.Signal.* 18:622-627.

Moustafa, Y. M., Moustafa, R. M., Belacy, A., et al. (2001). Effects of acute exposure to the radiofrequency fields of cellular phones on plasma lipid peroxide and antioxidase activities in human erythrocytes. *J. Pharm. Biomed. Anal.* 26:605-608.

In Vitro Studies:

Agarwal, A', Desai, N. R., Makker, K., et al. (2009). Effects of radiofrequency electromagnetic waves (RFEMW) from cellular phones on human ejaculated semen: An in vitro pilot study. *Fertil. Steril.* 92:1318-1325.

Campisi, A., Gulino, M., Acquaviva, R., et al. (2010). Reactive oxygen species levels and DNA fragmentation on astrocytes in primary culture after acute exposure to low intensity microwave electromagnetic field. *Neurosci, Lett.* 473 :52-55.

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Friedman, J., Kraus, S., Hauptman, Y., et al. (2007). Mechanism of short-term ERK activation by electromagnetic fields at mobile phone frequencies. *Biochem. J.* 405:559-568.

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Kahya, M. C., NaztroElu, M., Ç, ig, B. (2014). Selenium reduces mobile phone (900 MHz)-induced oxidative

stress, mitochondrial function, and apoptosis in breast cancer cells. *Biol; Trace Elem. Res.* 160: 285-293.

Liu, C., Gao, P., Xu, S'-C., et al, (2013b), Mobile phone radiation induces mode-dependent DNA damage in a mouse spermatocyte-derived cell line: A protective role of melatonin. *Int J Radiat Biol*, 89:993-1001.

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Naziroglu, M., Cig, B., Dogan, S., et al. (2012). 2.45-Gz wireless devices induce oxidative stress and proliferation through cytosolic Ca^{2+} influx in human leukemia cancer cells. *Int. J. Radiat. Biol.* 88:449-456.

Ni, S., Yu, Y., Zhang, Y., et al. (2013). Study of oxidative stress in human lens epithelial cells exposed to 1.8 GHz radiofrequency fields. *PIOS One.* 8:e72370.

Pilla, A. A. (2012). Electromagnetic fields instantaneously modulate nitric oxide signaling in challenged biological systems. *Biochem. Biophys. Res. Commun* 426:330-333.

Sefidbakht, Y., Moosavi-Movahedi, A. A., Hosseinkhani, S., et al. (2014). Effects of 940 MHz EMF on bioluminescence and oxidative response of stable luciferase producing HEK cells. *Photochem. Photobiol. Sci.* 13:1082-1092.

Xu, S., Zhou, Z., Zhang, L., et al. (2010). Exposure to 1800 MHz radiofrequency radiation induces oxidative damage to mitochondrial DNA in primary cultured neurons. *Brain. Res.* 1311:189-196.

Animal Studies:

Al-Damegh, M. A. (2012). Rat testicular impairment induced by electromagnetic radiation from a conventional cellular telephone and the protective effects of the antioxidants vitamins C and E. *Clinics* 67:785-792.

Ayata, A., Mollaoglu, H., Yilmaz, H. R., et al. (2004). Oxidative stress-mediated skin damage in an experimental mobile phone model can be prevented by melatonin. *J. Dermatol.* 31:878-883.

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Exhibit C

Peer-reviewed references

International EMF Scientist Appeal

*To: His Excellency Antonio Guterres, Secretary-General of the United Nations;
Honorable Dr. Tedros Adhanom, Director-General of the World Health Organization
Honorable Erik Solheim, Executive Director of the U.N. Environment Programme;
U.N. Member Nations*

International Appeal

Scientists call for Protection from Non-ionizing Electromagnetic Field Exposure

We are scientists engaged in the study of biological and health effects of non-ionizing electromagnetic fields (EMF). Based upon peer-reviewed, published research, we have serious concerns regarding the ubiquitous and increasing exposure to EMF generated by electric and wireless devices. These include—but are not limited to—radiofrequency radiation (RFR) emitting devices, such as cellular and cordless phones and their base stations, Wi-Fi, broadcast antennas, smart meters, and baby monitors as well as electric devices and infra-structures used in the delivery of electricity that generate extremely-low frequency electromagnetic field (ELF EMF).

Scientific basis for our common concerns

Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.

These findings justify our appeal to the United Nations (UN) and, all member States in the world, to encourage the World Health Organization (WHO) to exert strong leadership in fostering the development of more protective EMF guidelines, encouraging precautionary measures, and educating the public about health risks, particularly risk to children and fetal development. By not taking action, the WHO is failing to fulfill its role as the preeminent international public health agency.

Inadequate non-ionizing EMF international guidelines

The various agencies setting safety standards have failed to impose sufficient guidelines to protect the general public, particularly children who are more vulnerable to the effects of EMF. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) established in 1998 the “Guidelines For Limiting Exposure To Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz)”. These guidelines are accepted by the WHO and numerous countries around the world. The WHO is calling for all nations to adopt the ICNIRP guidelines to encourage international harmonization of standards. In 2009, the ICNIRP released a statement saying that it was reaffirming its 1998 guidelines, as in their opinion, the scientific literature published since that time “has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields. ICNIRP continues to the present day to make these assertions, in spite of growing scientific evidence to the contrary. It is our opinion that, because the ICNIRP guidelines do not cover long-term exposure and low-intensity effects, they are insufficient to protect public health.

The WHO adopted the International Agency for Research on Cancer (IARC) classification of extremely low frequency electromagnetic field (ELF EMF) in 2002 and radiofrequency radiation (RFR) in 2011. This classification states that EMF is a possible human carcinogen (Group 2B). Despite both IARC findings, the WHO continues to maintain that there is insufficient evidence to justify lowering these quantitative exposure limits.

Since there is controversy about a rationale for setting standards to avoid adverse health effects, we recommend that the United Nations Environmental Program (UNEP) convene and fund an independent multidisciplinary committee to explore the pros and cons of alternatives to current practices that could substantially lower human exposures to RF and ELF fields. The deliberations of this group should be conducted in a transparent and impartial way. Although it is essential that industry be involved and cooperate

in this process, industry should not be allowed to bias its processes or conclusions. This group should provide their analysis to the UN and the WHO to guide precautionary action.

Collectively we also request that:

1. children and pregnant women be protected;
2. guidelines and regulatory standards be strengthened;
3. manufacturers be encouraged to develop safer technology;
4. utilities responsible for the generation, transmission, distribution, and monitoring of electricity maintain adequate power quality and ensure proper electrical wiring to minimize harmful ground current;
5. the public be fully informed about the potential health risks from electromagnetic energy and taught harm reduction strategies;
6. medical professionals be educated about the biological effects of electromagnetic energy and be provided training on treatment of patients with electromagnetic sensitivity;
7. governments fund training and research on electromagnetic fields and health that is independent of industry and mandate industry cooperation with researchers;
8. media disclose experts' financial relationships with industry when citing their opinions regarding health and safety aspects of EMF-emitting technologies; and
9. white-zones (radiation-free areas) be established.

- 1) <http://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>
- 2) <http://www.icnirp.org/cms/upload/publications/ICNIRPStatementEMF.pdf>
- 3) <http://monographs.iarc.fr/ENG/Monographs/vol80/>
- 4) <http://monographs.iarc.fr/ENG/Monographs/vol102/>

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All inquiries, including those from qualified scientists who request that their name be added to the Appeal, may be made by contacting Elizabeth Kelley, M.A., Director, EMFscientist.org, at info@EMFscientist.org.

Note: the signatories to this appeal have signed as individuals, giving their professional affiliations, but this does not necessarily mean that this represents the views of their employers or the professional organizations they are affiliated with.

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Truth stands, even if there be no public support.

It is self-sustained.

Mahatma Gandhi

Dated July 3, 2018

