



3 February 2017

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Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793

Re: Case File 14-1160-EL-UNC; Case MMAI11131500 and all Utility Company Case Files regarding Wireless Utility Meters (ie., AMI, AMR, AMS, ERT, Wireless, Smart Meters, etc.)

Dear Public Utilities Commission of Ohio; All Electric, Gas and Water Utility Companies; President; Agents; Officers; Employees; Contractors and Interested Parties:

We, the undersigned, are scientists and health professionals who together have co-authored many peer-reviewed studies on the health effects of radiofrequency radiation (RFR). We are aware that the Public Utilities Commission of Ohio is considering a proposed smart meter opt-out fee from Duke Energy. Smart meters, along with other wireless devices, have created significant public health problems caused by the radiofrequency radiation (RFR) they produce, and awareness and reported problems continue to grow. With Duke Energy being America's largest utility provider and, consequently, having the largest potential smart meter implementation reach, it is imperative that the Public Utilities Commission of Ohio be fully aware of the harm that RFR can cause and allow utility customers to opt out of smart meter installation with no penalty.

The majority of the scientific literature related to RFR stems from cell phone studies. There is strong evidence that people who use a cell phone held directly to their ear for more than ten years are at significantly increased risk of developing gliomas of the brain and acoustic neuromas of the auditory nerve. There is also evidence that the risk of developing these cancers is greater in younger than older people. The May 2016 report from the US National Toxicology Program showing that rats exposed to cell phone radiation for nine hours per day over their life-span develop gliomas of the brain and Schwannoma of the heart (the same kind of cancer as acoustic neuroma) adds proof to the conclusions from the human health studies that radiofrequency radiation increases risk of cancer.

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Smart meters and cell phones occupy similar frequency bands of the electromagnetic spectrum, meaning that cell phone research directly applies to smart meter RFR. Smart meter RFR consists of frequent, very intense but very brief pulses throughout the day. Because smart meter exposure over a 24 hour period can be very prolonged (pulses can average 9,600 times a day), and because there is building evidence that the sharp, high intensity pulses are particularly harmful, the cell phone study findings are applicable when discussing adverse health impacts from smart meters.

While the strongest evidence for hazards coming from RFR is for cancer, there is a growing body of evidence that some people develop a condition called electro-hypersensitivity (EHS). These individuals respond to being in the presence of RFR with a variety of symptoms, including headache, fatigue, memory loss, ringing in the ears, "brain fog" and burning, tingling and itchy skin. Some reports indicate that up to three percent of the population may develop these symptoms, and that exposure to smart meters is a trigger for development of EHS.

In short:

- Smart meters operate with much more frequent pulses than do cell phones, increasing the potential for adverse health impacts.
- Smart meter pulses can average 9,600 times a day, and up to 190,000 signals a day. Cell phones only pulse when they are on.
- Cell phone RFR is concentrated, affecting the head or the area where the phone stored, whereas smart meter RFR affects the entire body.
- An individual can choose whether or not to use a cell phone and for what period of time. When smart meters are placed on a home the occupants have no option but to be continuously exposed to RFR.

The Public Utilities Commission should not be relying on industry representatives for assistance, due to their obvious conflict of interest. Too often they rely on biased research and hold opinions that are not consistent with medical evidence. The symptoms and illnesses experienced from wireless utility meters are related to length and accumulation of exposure and therefore not everyone will exhibit symptoms immediately. In addition, as with many other diseases, not everyone is equally susceptible. There are a number of double-blind studies which clearly show that some people with EHS will develop symptoms when exposure to RFR is studied in a double blinded experimental protocol, in which the subject do not know whether or not the RFR is being applied. These individual are not suffering from a psychosomatic disease, but rather one that is induced by the exposure to RFR. Public health agencies that label these symptoms as being only psychosomatic are ignoring this evidence and are not working to ensure fair treatment of and protection of the public.

The adverse health impacts of low intensity RFR are real, significant and for some people debilitating. We want to stress three fundamentals as your agency proceeds to consider a smart meter opt-out:

- The Federal Communication Commission's safety standards do not apply to low intensity RFR.
- There is no safe level of exposure established for RFR.
- People around the world are suffering from low intensity RFR exposure, being at increased risk of developing both cancer and EHS.

Citizens rely on their government agencies for protection from harm. Accordingly, we urge the Public Utilities Commission of Ohio to reject any fees or tariffs associated with smart meter opt-out and allow citizens to opt out without penalty.

Thank you for your attention and consideration. What you do in this instance affects the lives of many in Ohio and beyond.

Yours sincerely,

A handwritten signature in black ink, appearing to read "David O. Carpenter". The signature is fluid and cursive, with a long horizontal stroke at the end.

David O. Carpenter, M.D.
Director, Institute for Health and the Environment
University at Albany
Rensselaer, NY 12144

Dr. Lennart Hardell, MD, PhD
Professor
Department of Oncology, University Hospital
Orebro, Sweden

Dr. Magda Havas, BSc, PhD
Environmental & Resource Studies
Trent University
Canada

Dear Public Utility Commission of Ohio, President, agents, officers, employees, contractors and interested parties of PUCO;

This Letter is for Public Comment in regards to Case File 14-1160-EL-UNC

Any and every party intending to install any "wireless" utility meters (Also referred to as; AMI, AMR, ERT, AMS, Smart Meters or any other deceptive name) or any activity-monitoring device on anyone's home should be denied consent for installation and denied consent for use of all such devices on all properties. Installation and use of any activity-monitoring device should be refused and prohibited. Based on the Federal Wiretap Act and the Stored Electronic Communications Act, 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. Authorization for sharing of personal and private information may only be given by the originator and subject of that information.

The United States Federal Energy Policy Act of 2005 states as follows: **the utility shall offer customers** a time-based rate; and for customers who request a time-based rate, the utility will provide a time-based smart meter. Therefore, the customer **has the right to decide to refuse a smart meter**, and the customer should not be challenged on this decision by a utility representative. The customer should not incur any additional charge for this decision nor for maintaining the utility meter presently in operation on their properties. **In essence, the smart meter program is truly an "Opt-In" program.**

As a customer of Duke Energy in a different state, I feel it is my responsibility to help other individuals who are being affected by these dangerous wireless meters just as we are here. I am opposed to all wireless utility meters for the following reasons:

1. **Duke Energy, all of its associated Utilities, (as well as other Utility Companies not listed here) and the Public Utility Commission of Ohio are well aware of not only the violations listed above, but the Health and Environmental Damages caused by accumulation of exposure to these Class 2b labeled Carcinogenic / DNA damaging, wireless utility meters.** This is evidenced by carefully reading all of the case files listed below as well as reading the unbiased medical research, doctors letters, public complaints, lawsuits, etc... that have been filed against the utilities and the PSC's;

***Ohio PSC : Case File 14-1160-EL-UNC**

***Kentucky PSC: Case File 2012-00428, 2016-00394, 2016-00187, 2016-00152, 2016-00370**

***South Carolina PSC: Case File 2013-59-E**

***Florida PSC: Case File Docket No. 130223**

***North Carolina PSC: Docket No. E-7 Sub 1115 (Note: Originally Docket No. E-100, SUB 141)**

2. In May 2011, the World Health Organization's International Agency for Research on Cancer (IARC) classified radiofrequency electromagnetic fields (RF-EMF) as a possible human carcinogen (Group 2B) in the same classification as lead, DDT, and chloroform. We do not want additional layers of pulsed radiofrequency electromagnetic fields in our homes.
3. Wireless meters identify electrical devices inside the home and record when and for how long they are operated, resulting in an invasion of our privacy. They monitor household activity and occupancy in violation of our

rights to privacy in our homes. According to a February 2012 Congressional Research Service Report entitled *Smart Meter: Privacy and Cybersecurity*, the Department of Energy reported that by matching data with known appliance load signatures, smart meters will be able to reveal people's daily schedules, their appliances and electronic equipment, and whether they use certain types of medical equipment. 1

4. Wireless meters transmit information-carrying radio waves which can be intercepted by unauthorized and unknown parties. The signals can be used to monitor behavior and occupancy, and they can be used by criminals to aid criminal activity against the occupants. Former CIA Director James Woolsey accounted the wireless security threat at http://www.metacafe.com/watch/4260978/jim_woolsey_grid_security_is_afterthought
5. Data about residents' daily routines and activities are collected, recorded, and stored in the utility's databases, which are accessed by parties not authorized by occupants to know and share that private data. Those databases may be handed off to criminals, blackmailers, corrupt law enforcement, private hackers, power company employees, and anyone who may act against the interests of the occupants who are under metered surveillance.
6. Medical research has documented that smart meters can negatively impact health. In April 2012, the American Academy of Environmental Medicine (AAEM) issued a position paper entitled, *Electromagnetic and Radiofrequency Fields Effect on Human Health*. According to the report, "Multiple studies correlate RF exposure with diseases such as cancer, neurological disease, reproductive disorders, immune dysfunction, and electromagnetic hypersensitivity..... many *in vitro*, *in vivo* and epidemiological studies demonstrate that significant harmful biological effects occur from non - thermal RF exposure... Genetic damage, reproductive defects, cancer, neurological degeneration and nervous system dysfunction, immune system dysfunction, cognitive effects, protein and peptide damage, kidney damage, and developmental effects have all been reported in the peer - reviewed scientific literature." In a press release, the AAEM calls for immediate caution regarding smart meter installations due to potentially harmful exposure to pulsed radiofrequency radiation.
7. **Dr. Magda Havas, Associate Professor of Environmental & Resource Studies at Trent University in Peterborough, Ontario, Canada has received emails and phone calls from occupants of properties where wireless meters were recently installed. They complain of ill health, including new symptoms such as headaches, insomnia, anxiety, skin rashes, tinnitus, heart palpitations, depression, fatigue, and short-term memory loss. The following link (EMF Safety Network), has specific accounts of deteriorating health after wireless meters were installed: http://emfsafetynetwork.org/?page_id=229**
8. Wireless meters continually transmit pulsed digital microwave radiation (RF-EMF) 24/7. According to a report issued by Pacific Gas and Electric Company, some wireless meters transmit up to 190,000 pulses per day. 2
9. Wireless meters can interfere with arc-fault circuit interrupters and have been the suspected cause of explosions and fires.
10. The required power conversion of wireless meters causes harmonic distortion within electrical systems (otherwise known as "dirty electricity"). Dirty electricity has links to cancer.
11. Wireless meters cause radiofrequency interference. On November 19, 2011, Portland Press Herald reported that the Maine Public Advocate's Office issued the following statement, "*Smart Meters are interfering with a wide range of household electronic devices, from garage door openers and WiFi devices to security systems.*"
12. Utilities claim that wireless meters will cause customers to monitor their electrical usage to conserve more electricity. However, a British study reported on Sept. 2, 2011 that thousands of citizens with a wireless meter on their home over the course of one year experienced little to no change in electrical usage. In many other states consumers have reported outrageous billing errors and problems with collector units associated with the wireless meters which cause severe spikes and mis-information regarding billing.

13. Dr. David Carpenter states in his letter to the NCUC;

While the strongest evidence for hazards coming from RFR is for cancer, there is a growing body of evidence that some people develop a condition called electrohypersensitivity (EHS). These individuals respond to being in the presence of RFR with a variety of symptoms, including headache, fatigue, memory loss, ringing in the ears,

"brain fog" and burning, tingling and itchy skin. Some reports indicate that up to three percent of the population may develop these symptoms, and that exposure to smart meters is a trigger for development of EHS.

- **Smart meters operate with much more frequent pulses than do cell phones, increasing the potential for adverse health impacts.**
- **Smart meter pulses can average 9,600 times a day, and up to 190,000 signals a day.** Cell phones only pulse when they are on.
- Cell phone RFR is concentrated, affecting the head or the area where the phone is stored, whereas **smart meter RFR affects the entire body.**
- An individual can choose whether or not to use a cell phone and for what period of time. **When smart meters are placed on a home the occupants have no option but to be continuously exposed to RFR.**

I am asking that the Public Utility Commission of Ohio to respond ethically and morally by stopping the abuse of money and power in relationship to these unethical and criminal acts against our freedoms and health.

I am asking that the Public Utility Commission of Ohio protect all humans, pets, wildlife, and the environment against the damages caused by the accumulation of these wireless radiation frequencies which will only continue to increase unless responsible, ethical, and morally responsible leaders take action to stop this illegal activity.

Please protect all consumers in Ohio against the above mentioned by installing only safe analog utility meters and not charging any fees for insisting upon the usage of, and/or returning to the usage of safe analog utility meters.

Please stop all deceptive practices in regards to ignoring the unbiased research and allow the public to be made aware of all the dangers related to wireless utility meters so that they can make "informed" decisions regarding their utility services.

I am asking you to protect our rights to privacy and protection as stated above.

Sincerely,

Jeane Frey

Name:

Address, City, State:

County:

Date:



Hamilton

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