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OCT 14 2025

**PUBLIC SERVICE
COMMISSION**

Monday, October 13th, 2025 at 9:14 PM

Dear Kentucky Public Service Commission

I am concerned with your plan to increase your smart meter program. Since the roll out of the smart meter program I have had many different health related issues. I have had ringing in my ears, joint pain, neck pain and fatigue even after 8 hrs of sleep. My health has always been very good and I rarely go to the doctor.

Another issue related to smart meter roll out was a house fire. The smart meter and a newer vehicle were parked close to one another and the fire appeared to start there. It then climbed up the siding into the attic and spread throughout the house.

I am not in favor of any further funding of smart meter technology. According to the information at the beginning of the program it was supposed to save money and provide better service. I feel it was just a way to cut power, cut jobs and data collect on customers.

Thank you for your attention to this matter

S. W.

Utility customer



Frankfort Kentucky Home Catches Fire after Smart Meter Installed on Property



Jeff Foster
349 Mullins Point Rd
Campton, KY 41301

October 13, 2025

Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

Re: Public Comments on Proposed Smart Meter and Infrastructure Investments – Request for Mandatory Opt-Out Provision for Analog Meters

Dear Commissioners: I am writing as a residential customer of Licking Valley Rural Electric Cooperative Corporation (LV RECC) in Wolfe County, Kentucky, to provide public comment on the Commission's upcoming public meeting regarding substantial investments in smart meter technology and related infrastructure. As a ratepayer in a rural area with limited grid alternatives, I am deeply concerned about the financial burden these upgrades place on consumers without adequate protections for individual choice, particularly the option to retain or install analog (non-communicating) meters. I respectfully urge the Commission to require utilities, including cooperatives like LV RECC, to offer penalty-free opt-outs for analog meters, ensuring that health-sensitive customers like myself are not compelled to accept technologies we believe pose personal risks.

Earlier this year, I met in person with LV RECC's office manager, John May, and CEO Kerry Howard, to inquire about installing an analog meter at my off-grid cabin on Mullins Point Road. They informed me that such an accommodation would require explicit approval from the Kentucky Public Service Commission via a resolution mandating the provision of analog meters to requesting customers. I was disappointed but understanding of their position, as it aligned with the cooperative's policy deferring to PSC guidance. However, my review of PSC meeting notes from recent proceedings revealed that language intended to enforce this mandate was initially proposed but ultimately withdrawn. This decision effectively delegated authority to local utilities, allowing entities like LV RECC to prohibit analog meters outright. As a result, despite my proactive request, I have been denied this basic option, forcing me to either forgo reliable service or accept a smart meter installation.

This lack of consumer choice is particularly troubling given the scale of the proposed expenditures—potentially hundreds of millions across the state, as seen in prior cases like the 2018 Kentucky Utilities/LG&E proposal, which sought \$350 million for 1.3 million smart meters before the Commission rejected it for insufficient cost justification.

I support modernizing Kentucky's grid for efficiency and reliability, but these investments must prioritize individual rights and protect vulnerable ratepayers. Instead of imposing a mandatory opt-out fee, like the \$25 monthly charge approved for Duke Energy Kentucky customers in 2017, utilities should offer a no-cost opt-out option to ensure fairness while maintaining flexibility in deployment.

My request for an analog meter stems directly from legitimate health concerns related to the radiofrequency (RF) emissions from smart meters. As someone sensitive to electromagnetic fields—exacerbated by my remote living situation and reliance on minimal technology—I worry about the chronic, low-level RF exposure from these devices, which transmit data wirelessly up to several times per day. Studies and reports have highlighted potential risks, including disrupted sleep, headaches, and long-term cellular damage from pulsed RF signals in the 2.4 GHz band, akin to Wi-Fi but persistent and unavoidable since the meter cannot be turned off.

For instance, measurements near smart meter antennas have recorded power densities of 50–140 $\mu\text{W}/\text{cm}^2$ during transmission, raising questions about cumulative effects for those in close proximity, such as in rural homes where meters are mounted near living spaces.

The World Health Organization's classification of RF fields as a "possible human carcinogen" further underscores the need for caution, especially for individuals like me who experience symptoms from even brief exposures to similar sources.

While I appreciate the Commission's past responsiveness to such issues—evidenced by the 2016 decision against statewide smart meter mandates due to customer health and privacy concerns - the current trajectory risks overlooking these voices amid broader infrastructure pushes.

In closing, I implore the Commission to revisit and adopt a resolution requiring all Kentucky utilities to provide analog meters upon request, without fees or penalties, as a matter of public health equity and consumer protection. This would honor the PSC's role in balancing innovation with fairness, particularly for rural and health-compromised residents. I am available to discuss my experience further and can be reached at 859-797-7798 or jeff.foster@gmail.com. Thank you for considering my comments and for your service to Kentucky's ratepayers.

Sincerely,

Jeff Foster

Summary of Documents Contained in Notes (and in Attached Previous Case Files) for Scheduled Public Meeting on October 14, 2025 at 5:00 P.M.

The Utility Companies Need to be Held Liable and Forced to Pay the Customer for the Damages Caused to their Health, Property, and Environment due to the installation of this Class 2b Carcinogenic Technology!

Major Codes being Violated by Utility Companies and the Kentucky Public Service Commission. (There are many more, but this is what we would like addressed immediately.

Letter to the Kentucky PSC from Doctors that was Ignored

Summary of Damages to Property, Environment, People, Pets, Wildlife, Forestry, and Landscapes.

Kentucky PSC Wireless Cases which contain the Evidence that has been ignored.

Symptoms Study Regarding Exposure to Wireless Utility Meters

Wireless Meters are Costing Customers a Fortune! They were never to be mandated and the Utility Companies have forced them.

We have to pay to keep our old Analog Meters which are safe and last 30-50 Years. (Life of Wireless Meters is 3-5 at most 10 years.

These costs are being passed on to all of us including those who don't have them.

Now we are being told that they are eliminating our Analog Meters and want to Force Digital Opt-Out Meters which they claim don't transmit.

This is a lie because they have transmitters in the chips and are just as dangerous. This is a bait and switch!

Homes and Businesses Experiencing Electrical Shorts, Equipment Interference, Electrical Fires and Explosions after Installation of Wireless Meters. Property and Personal Equipment such as Water Heaters, Furnaces, Airconditioners, TV's, Stereo's, Ovens, etc... being damaged or destroyed.

No Federal Mandate for these Wireless Meters (See Attached Copy of Energy Act 2005)

Copies of Senator and House Representative Letters to FCC requesting Updated Guidelines due to Lawsuit

Lawsuit Won Against FCC...Safety Guidelines Outdated

Documented Research from Army, Navy, CIA, Air Force, NASA, etc... Proving that the Wireless Damages Living Tissue and Causes Health Problems and Disease!

Medical Evidence from Doctors showing that Wireless Meters are a Class 2b Carcinogen and Cause Illness, Suicides, Crime, Accidents, etc...

Timetable Comparison Charts and Correlation of Wireless Technology with the Increase of Disease.

Research showing the Connection between "Flu-like" Symptoms (Covid Especially) and Exposure to Radiation from Wireless.

PSC Wireless Meter Case Files with Complaints Regarding Duke Energy and the Dangers of the Smart Grid (Contain Health Complaints, Privacy Violations, Research Documentation, Testimonies, Public Comments, and Environmental Damages caused by installation of Wireless Utility Meters.

There are more Complaints filed in numerous states, but do not have listings of those.)

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

Ohio PSC : Case File 14-1160-EL-UNC, Case MMA111131500

North Carolina PSC: Case File Docket No. E-7 Sub 1115 (Note: This was originally

Case File Docket No. E-100, SUB 141)

South Carolina PSC: Docket 2017-19-E, Docket No. 2013-59-E , Docket No. 2016-366-E ,

Docket No. 2016-354-E

(opt-out)

Florida PSC: Case File Docket No. 130223



3 February 2017

Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

Re: Case files 2012-00428, 2016-00370, 2016-00187, 2016-00152 and all other Utility Company Case Files regarding Wireless Utility Meters (ie., AMI, AMR, AMS, ERT, Wireless, Smart Meters, etc.)

Dear Kentucky Public Service Commission, 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 Kentucky Public Service Commission 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 Kentucky Public Service Commission 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.

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 Service 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.

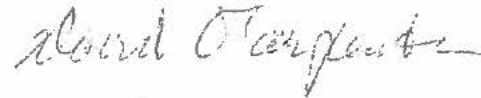
The adverse health impacts of low intensity RFR are real, significant and for some people debilitating. We want to stress three fundamentals as your agency proceeds to consider a smart meter opt-out:

- 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 Kentucky Public Service Commission 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 Kentucky and beyond.

Yours sincerely,

A handwritten signature in dark ink, appearing to read "David O. Carpenter", with a long horizontal flourish extending to the right.

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

Rashes with Raw and Pink burned skin after 1 year exposure to wireless electric meters.



This Man is now Deceased because the Utility Company and PSC Refused to Remove the Wireless Electric Meter

E.G. Burns on Tongue and Chin Wifi but No Wireless Meter..... 3/12/17



S.K. Burns on Tongue started after Wireless Meters Installed on School (Hardwired at Home and has Safe Analog-Mechanical Meter.

Start 06/20/22

7/31/22



8/6/22



6/27/25 JW Swelling and Burns after staying in Hotel with Wireless Meter and Wifi for 1 Week

(This person eats Organic, doesn't take Vaccines or Medications, Doesn't Use Wifi, Doesn't Use a Smart Phone, and doesn't have a Wireless Meter at Home.)

Once she is out of the Wifi and Wireless Meter Environment (back home) , this all goes away!

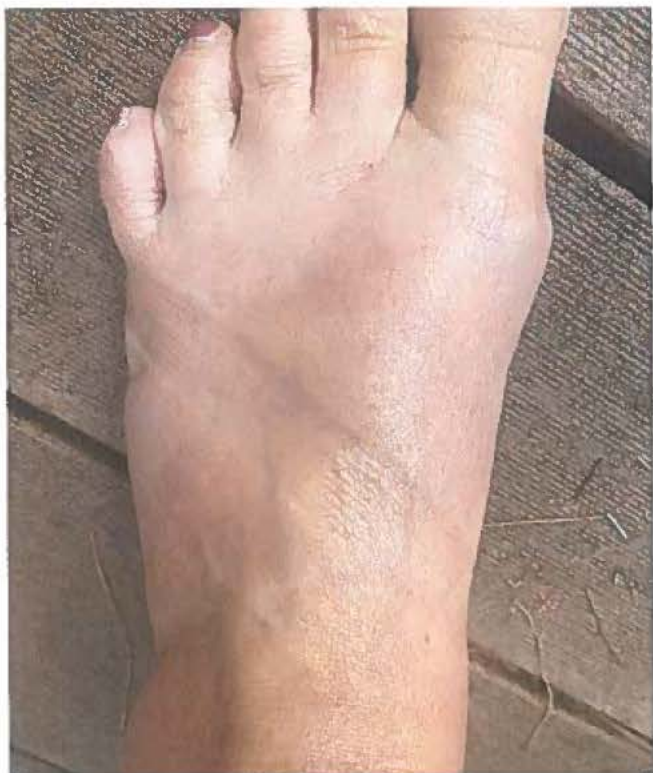
Face Burns and Swelling



Swelling around Neck (Thyroid)



Swelling and Burns on Ankles and Feet



Burns and Swelling Chin and Neck



Gumball Reaction to being in Veterinarian Clinic Right Before Leaving (Wifi, Smart Meter, LED Lights and Towers)



Indigo Prior SM and Wifi Exposure



Indigo 2 Weeks After Removed from SM and Wifi Exposure + Vit B & Inspiracell



Indigo 4 Days in SM and Wifi Exposure



Indigo 4 Days in SM and Wifi Exposure



My Tongue: Spleen Deficiency after 2 Weeks visiting Dad at Apartment Complex with SM and Wifi (2015)



Adopted Calista from RM who has SM and Wifi



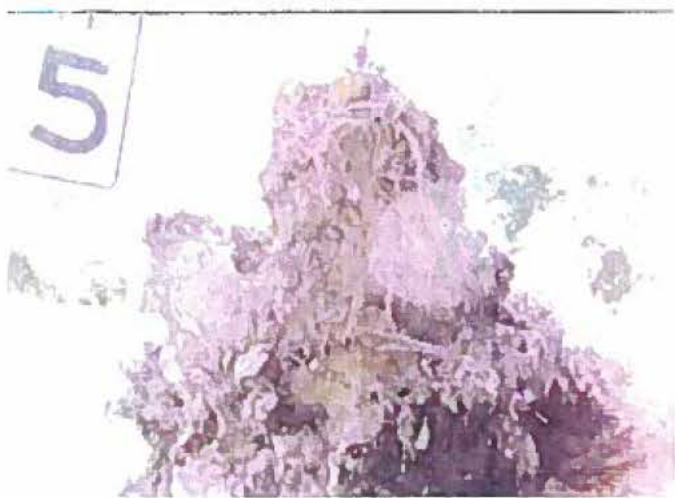
3 Weeks after Non Exposure + B Vit & Inspiracell



forms Easily "Take Down" Trees that are Exposed to Wireless Water and Utility Meters



oot Systems Destroyed by Wireless Water Meter Systems



Young Trees Already Dying and "Hollowed Out" from Exposure to Wireless Water Meters



Dutch study suggests Wi-Fi possibly harmful to trees

by [Lin Edwards](#), Phys.org

(PhysOrg.com) -- A new study carried out in the Netherlands suggests radiation from Wi-Fi networks may be damaging trees and affecting the growth of other plants near routers.

Scientists from Wageningen University were asked to carry out the study five years ago after local officials in Alphen aan den Rijn noted that ash trees planted near a [wireless router](#) were suffering from bleeding bark, cracks, lumps, discolorations, and their leaves were dying. No bacterial or viral infection could be identified in the trees.

The researchers, led by Dr. A.A.M. van Lammeren, exposed small ash trees and other plants to six sources of radiation at frequencies varying from 2412 to 2472 MHz and a capacity of 100 mW EIRP, the range common for [Wi-Fi](#). The plants were placed at distances varying from 50 to 300 cm for a period of more than three months. The results revealed that in trees closest to the Wi-Fi source the upper and lower epidermis (skin) of the leaves developed a metallic luster and began to die off.

A survey of trees in urban areas in the Netherlands showed 70 percent of all deciduous trees had similar symptoms, compared to only 10 percent five years ago, while in wooded areas away from urban centers trees were unaffected.

Reports on the study may inflame concerns in some over locating wireless routers in schools and fears radiation from them may affect humans as well as [trees](#), but the scientists concerned stress the findings are preliminary and no far-reaching conclusions can be made. The researchers say larger scale research is needed over a longer period to confirm the findings. It is unclear whether the experiments ruled out other possible factors such as the presence of more pollution in urban areas than forests. The study also acknowledges that other research carried out elsewhere has shown Wi-Fi [radiation](#) has no detrimental effects.

The study will be the subject of a conference in the Netherlands in February next year.

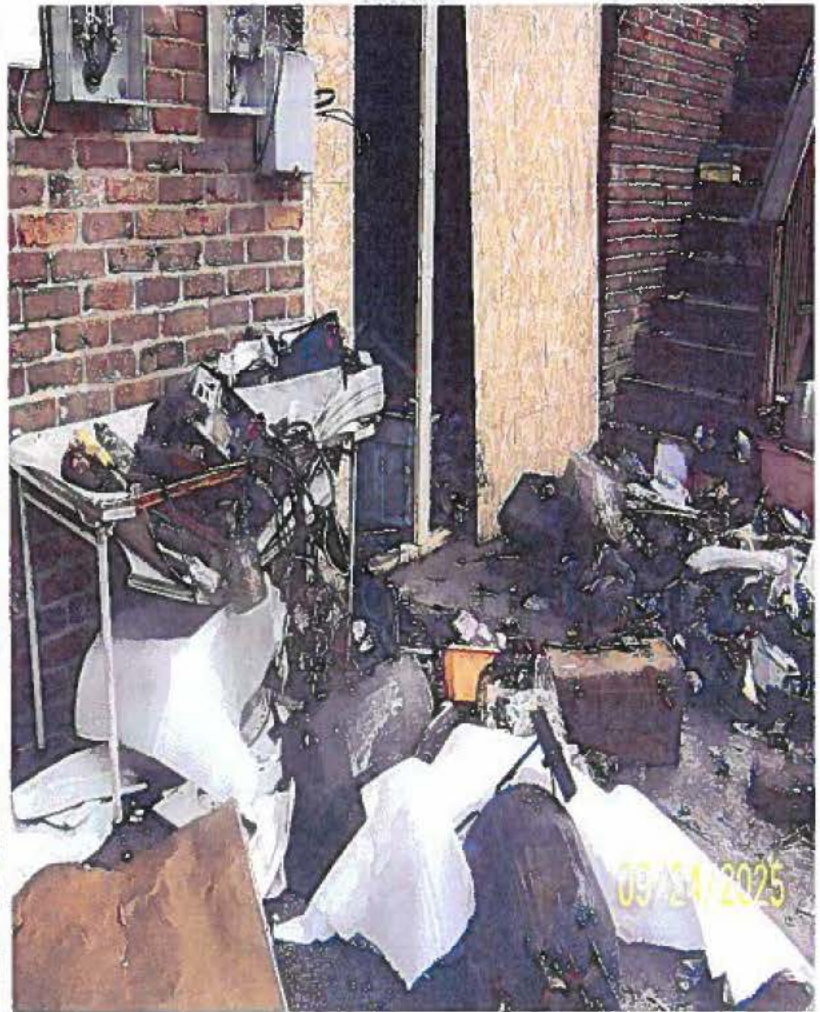
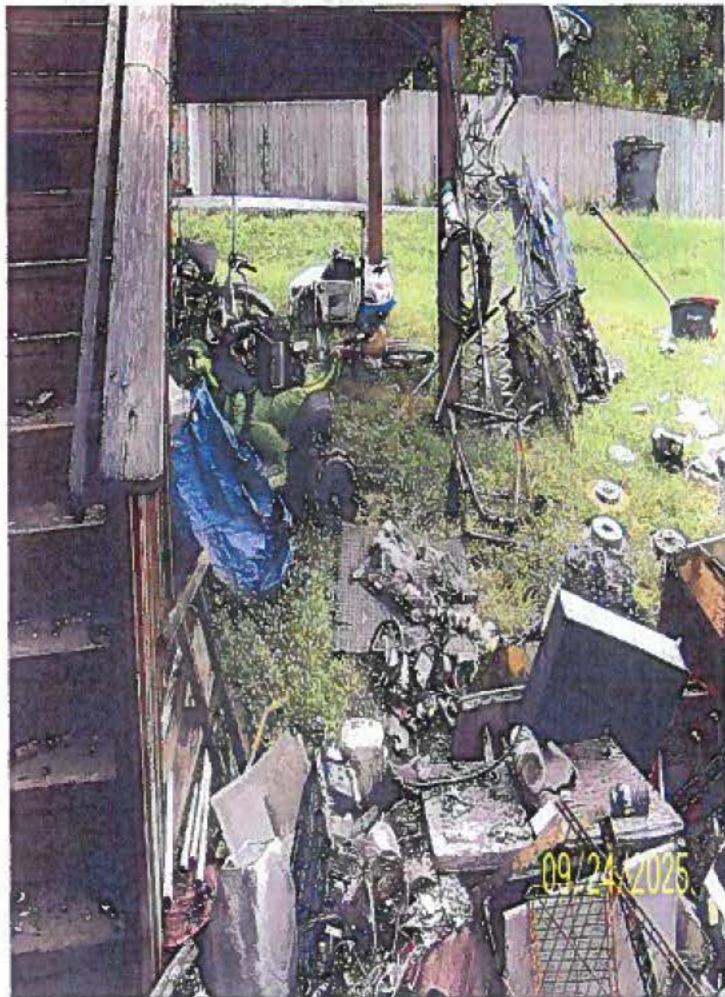
Frankfort Kentucky Home Catches Fire after Smart Meter Installed on Property





Duplex Fire Pepperhill after Wireless Meter Installed. Owner was hearing hissing and popping noises. Lights flickering, Problems with Electronics. Was told Everything was fine. Then Home caught fire at point of Wireless Meter and Meterbox. Van that was parked in front of Smartmeter had Window Blown out and burned.





Woman Killed in Nevada Smart Meter Fire; Man's Face Burned in Another NV Fire

September 2014. A 61-year-old woman died in a smart meter fire in Reno. Other Nevada fires have maimed individuals or damaged their homes. The fire chief said meter fires are particularly concerning because they start on the outside of the house, won't be picked up by indoor smoke detectors and can escape immediate notice.

Flickering and dimming lights and appliances that burn out for no apparent reason are warning signs.

Fire Chief Garrison said that a fire "can burn a long time and enter the attic or the walls. The occupants inside may not even be aware the house is on fire. This is very alarming to me."



One of the fires in Reno burned a man's face. The meter burst into flames when he flipped a breaker switch, scorching him. He put out the flames with a fire extinguisher and was treated at a local hospital. Another home in Sparks was significantly damaged.

The fire departments gave the suspect meters to the utility.

This is like handing a gun back to a murder suspect for investigation!

In an interview last week, an electrician who helps NV Energy replace the meters told the [Reno Gazette-Journal](#) that often meters would be fixed before the fire department could even be called. The RGJ has withheld his name because he continues to do work for NV Energy and didn't want to put his employment at risk.

"NV Energy was so quick in having me or one of the other guys out there that the fire department never knew about them," he said. "We'd have the panel changed out and power turned on within five hours and a guy painting the wall right behind us."

He said that he's fixed 15 or 16 burned-out meters in the past two years in Reno, Sparks and Gardnerville.

"The fire department was never called on most of them. I only saw the fire department on two or three of them," he said.

Read more at the [Reno Sparks Gazette](#). This is one of the most unbiased smart meter stories out there and worth reading for the information it contains. Read more on the cover-ups at the [Reno Gazette-Journal](#).

Utilities Remove Burned Smart Meter Evidence from Fire Scenes

Posted on [July 28, 2015](#) by [SkyVision Solutions](#)



We've had anecdotal evidence for quite some time that utility companies remove burned smart meters from fire scenes before fire investigators can determine the source of home or business electrical fires. This was more officially reported this past March when ["Quebec City firefighters asked Hydro-Québec to leave smart meters alone."](#)

Quebec City's fire department says Hydro-Québec has been too quick to remove smart meters from the scenes of fires where faulty wiring may be an issue. "A fire is considered a crime scene and at a crime scene evidence should be left alone," said France Voiselle, a department spokeswoman.

Also based upon [reporting](#) of the Reno-Gazette Journal in September 2014:

"... an electrician who helps NV Energy replace the meters told the Reno Gazette-Journal that often meters would be fixed before the fire department could even be called. The RGJ has withheld his name because he continues to do work for NV Energy and didn't want to put his employment at risk."

"NV Energy was so quick in having me or one of the other guys out there that the fire department never knew about them," he said. "We'd have the panel changed out and power turned on within five hours and a guy painting the wall right behind us."

Norman Lambe, a Property Claims Adjuster in Southern California, has also reported this phenomenon of utilities removing burned smart meters from fire scenes before investigators or insurance company claim adjusters have had an opportunity to examine the meters to determine if they are the cause of the fire.

According to an [article](#) by Norm Lambe in March 2014:

"My interest was first turned to the problem of Smart Meter fires because of my work as a Property Claims Adjuster here in Southern California. As the Smart Meter roll out took place throughout Southern California, I began to see more and more situations where if the Smart Meter had not been installed, the fire would most likely not have taken place."

Now in July 2015, Lambe again [writes](#):

“When a fire associated with the malfunctioning of a smart meter is reported to the insurance company, the Claims Adjuster will inspect the damage, and attempt to determine what caused the fire. The Adjuster will then continue the program of the evaluation of the loss and payment of the claim.”

“While the steps outlined take place, the insurance company is also interested in determining the cause of the fire, and if it is due to someone’s negligence or manufacturer’s defect. The insurance company will begin subrogation efforts to recover the insured’s deductible, as well as the amount the company paid for the repair.”

“Part of the problem I face as a Claims Adjuster and other Adjusters are dealing with, is that when the fire department receives the notice of a fire, one of their first duties is to notify the local public utilities to shut off the utilities, preventing the further spread of the fire. When the local electrical utility arrives and determines that a smart meter is the issue, they have been removing the meter, and preventing the inspection of the meter by the experts the insurance company will hire to determine who is responsible for the fire.”

“In June of 2015, two black outs occurred in busy Las Vegas Nevada restaurants, believed to be caused by smart meter failures. Nevada Energy has removed the meters and as of this day the meters have still not been examined, although the claims are in the process of loss evaluation and will be paid by the insurance company. However, the real issue as to why all the meters are failing is not being dealt with.”

“This is a serious situation, as the utility company, upon removal of the meter is tampering with what is evidence concerning the cause of the fire...”

This website has [established why smart meters increase the risk of fires as compared to analog meters](#) and has reported countless incidents of where smart meters were directly involved in fires or the likely cause of fires at homes or businesses. Yet the utility companies and smart meter manufacturers often deny any fires have been caused by smart meters whatsoever. As reported in this article, one way they can attempt to deny the fires is to apparently cover up the fires and remove evidence from the fire scenes prior to investigators seeing it.

Source Material for this Article

“Quebec City firefighters ask Hydro-Québec to leave smart meters alone,” at <http://www.cbc.ca/news/canada/montreal/quebec-city-firefighters-ask-hydro-qu%C3%A9bec-to-leave-smart-meters-alone-1.2983309>

“Reno smart meter fires more widespread than first feared,” at <http://www.rgi.com/story/news/2014/09/21/reno-smart-meter-fires-widespread-first-feared/15897355/>

Note/ Update: Unfortunately the website of examiner.com discontinued operations in July 2016

“Smart meter fire woes continue,” <http://www.examiner.com/article/smart-meter-fire-woes-continue>

“Are insurance companies avoiding the smart meter problem?,” at <http://www.examiner.com/article/are-insurance-companies-avoiding-the-smart-meter-problem>

Refer to: <http://web.archive.org/web/20160219015241/http://www.examiner.com/article/are-insurance-companies-avoiding-the-smart-meter-problem>

Also refer a separate article written subsequent to this posting: “Exploding and melting smart meters in Stockton, California,” at <http://www.examiner.com/article/exploding-and-melting-smart-meters-stockton-california>

<https://www.securityweek.com/smart-meters-interfering-home-electronics>

<http://www.securityweek.com/smart-meters-interfering-home-electronics>

Smart Meters Interfering With Home Electronics

By [Robert Vamosi](#) on November 23, 2011

About 200 customers of the Central Maine Power Company recently noticed something odd after the utility installed smart meters in their homes: in some cases other wireless devices stopped working, or behaved erratically.

The 425,000 installed smart meters all broadcast in the 2.4GHz frequency range.

Unfortunately, so do many of the consumer gadgets we take for granted these days including routers, electric garage doors, fire alarms, clocks, electric pet fences, answering machines, and baby monitors.

"We have asked CMP to do a better job informing customers about these potential problems, and while CMP's website does refer to the issue, we don't think it goes far enough," said Maine's Public Advocate Richard Davies in an online statement. "My agency is troubled by the possibility that people may be spending their time and money fixing a problem that may be caused by CMP's meters, and that can and should be fixed by CMP."

The utility's Web site does include a FAQ addressing interference. Their recommendations are to change the location of the affected electronic device or the channel used by the device. In the case of garage door openers, physically relocating the garage is not an option. In the case of baby monitors, there is often only one frequency choice.

The electromagnetic congestion in the home is in some ways similar to the growing electronic congestion in hospitals as they acquire more and more electronic monitors all operating within a few feet of each other. Medical equipment has been known to shut down or give erroneous results when positioned close to another piece of equipment. Such interference is not new, just getting worse—rapidly.

As early as the 1940s, there was electromagnetic interference within the home. Radios and TVs broadcast at various frequencies but they were configured to co-exist. The electric vacuum cleaner was not. Nor the electric hair dryer. The worst offender, however, was perhaps the microwave oven, which, even in the 1940s, bombarded food with radio waves at or near the 2.4GHz range. Sensing there would be more congestion in the future, organizations worked to protect radio and TV, while carving out blocks that can be later used for consumer gadgets.

The International Telecommunication Union Radiocommunication sector (ITU-R) has since defined whole blocks of frequencies as unlicensed and generally available for Industrial, Scientific, and Medical use. And for a while, it seemed that there would be enough of these to last. While 900MHz and 5 GHz are also unlicensed options, 2.4GHz remains the most popular, offering the strongest signal strength over the broadest area without an unwieldy antenna. Hence most wireless gadgets in the home today broadcast at or near this frequency, including Bluetooth gadgets. That's why you see FCC ratings on blenders.

So the trouble with the smart meters is at least understandable. Ideally, smart meters will one day communicate with your washing machine, dishwasher, refrigerator, and other energy intensive devices, allowing you to control energy usage, and potentially off-loading use to times when energy is cheap.

However, if the Bluetooth stereo component or the wireless router gets in the way, those energy readings could be wonky, and perhaps the energy savings as well.

If a device can't be moved, perhaps it will allow you to change the channel being used.

Most devices today default to channel six, but channels one and eleven are also viable options—at least for routers. I recently upgraded the plumbing in my house and found all my laptops no longer connected with the router. The reason? The copper tubing changed the local interference pattern among all my electronic gadgets. But once I changed the router's channel, I was back in business.

Given that we can't change the smart meters ourselves, it looks like consumers will have to get good at fixing their own electronic issues once their home becomes "metered."

<http://stlouis.cbslocal.com/2012/02/06/garage-door-openers-stop-working-on-entire-missouri-block/>

Garage Door Openers Stop Working On Entire Missouri Block

February 6, 2012 7:59 AM

ST. CHARLES, Mo. (AP/KMOX) — It's a puzzling phenomenon: On one street in St. Charles County, garage door openers have stopped working.

The St. Louis Post-Dispatch reports that no one knows what exactly is going on at Westhampton View Court. The garage door openers at all five homes on the court stopped working shortly after Christmas.

"It's a weird, weird thing," Joe Sullivan told the Post-Dispatch. "And the timing for it all to go haywire for everybody at the same time can't be coincidence, right?"

Garage door companies say interference problems are common at individual homes — they blame what is known as "frequency pollution." But experts say having the issue extend to multiple homes is just plain weird.

"There is so much radio frequency pollution now," Butch Martin, owner of Martin Door Co., told the paper. "Everything is wireless, and the more wireless stuff we get, the bigger the problem is going to get."

The Post-Dispatch reports that the Westhampton View Court residents filed complaints with the Federal Communications Commission over the issue. There is no word on how long it will take the FCC to conduct an investigation.

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Smart meters blamed for Wi-Fi, garage opener interference Dan Goodin Mon 21 Nov 2011 // 19:37 UTC

Utility not doing enough, advocate says

Smart meters issued by an electric utility in Maine are interfering with a wide range of customers' electronic devices, including wireless routers, cordless phones, electric garage doors, and answering machines.

The Central Maine Power Company has received complaints from more than 200 customers since the meters were installed a little more than a year ago. The utility has deployed almost 425,000 of the devices, which use low-power radio transmissions to send meter readings. The 200 complaints received to date are probably a small subset of those affected, the state's public advocate said.

"We have asked CMP to do a better job informing customers about these potential problems, and while CMP's website does refer to the issue, we don't think it goes far enough," Public Advocate Richard Davies said in the statement. "My agency is troubled by the possibility that people may be spending their time and money fixing a problem that may be caused by CMP's meters, and that can and should be fixed by CMP."

In a list of frequently asked questions, utility officials said the meters operate on the same 2.4GHz frequency band used by many cordless phones and 802.11 wireless devices.

Fire captain finds hazardous power surges follow Smart Meter installations

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Matt Beckett is a fire captain who lives in Cameron Park, CA. He sent the following account of serious electrical problems that occurred after Smart Meters were installed on his house:

“My family moved into a 1982 built house approximately nine years ago and remodeled almost everything (including ALL electrical fixtures: lights, fans, switches, sockets, etc). Our home had what I believe to be it's original analog meter at the panel. Two years ago PG&E replaced that meter with a “Smart Meter”. Immediately following we noticed power surges in the form of our refrigerator motor intermittently speeding up simultaneously with our lights becoming brighter. As a seventeen year veteran and current Fire Captain this caused me to become very concerned. We notified PG&E and called a licensed electrician to come out and assess. Both arrived at our house within one hour. The electrician checked “our side” and PG&E theirs. Nothing was found to be wrong or faulty, but PG&E decided to change out the connections at the power pole just in case. He also pulled the smart meter and replaced it with an analog. Two years have come and gone without any electrical problems. However, on 11/5/12 our analog was replaced with another smart meter. Within one week of this we noticed power surges once again in the form of lights becoming brighter, refrigerator motor becoming louder, motion light activating by itself in no wind conditions, and while vacuuming the motor increasing speed much like the refrigerator. This culminated on 11/25/12 with my wife noticing a plastic like burning smell coming from our office. Upon further inspection we noticed our computer, phone, and shredder were not working. They were plugged into a Belkin brand surge protector that fortunately did it's job. This caused the carpet to become hot and melted underneath in a dime sized spot and burned up (inside) the surge protector. Immediately, we called PG&E and another electrician as in the past. Both were at our house within an hour and the same result was found. “Our side” checked out fine and PG&E did not notice anything wrong or faulty. The connections at our roof top power drop were changed by PG&E just in case (even though he thought they were fine). However, the smart meter was replaced with another smart meter. Later that evening our family room TV and components were working fine. However, the next morning they had no power. When I inspected the surge protector that they were plugged into, the same condition was found as in our office.”



Matt spent four hours on the phone with PG&E, dealing with this problem and notifying them of his concerns. He demanded a rush on switching back to an analog meter. He says, *"I've been met with multiple attitudes and accusations that I've not done everything I can do to make sure it's not my house causing the problem."* According to Matt, the only time there were electrical problems was when PG&E changed from the analog to the Smart Meter.

Although PG&E tells Matt he can file a claim for the damaged surge protectors, they say he now has to pay \$75 plus \$10 a month to keep an analog meter on his home.

Matt's story is similar to the East Bay fire captain who reported electrical problems and a too hot to touch Smart Meter. [Arcing Meter Hazards](#). Evidence is piling up against Smart Meter installations connected to burnt out appliances, [fires and explosions](#).

Sandi Maurer, director of the EMF Safety Network has been compiling Smart Meter related fires stories since 2010. She says, *"It is unthinkable that PG&E, other utilities, and regulators in California have neither publicly admitted to, nor squarely addressed this serious safety hazard related to Smart Meter installations. They are failing their statutory obligation to ensure safe and reliable utility service."*

THERMOGRAFIX

consulting corporation

Smart Meter Installations & Fires

While the next pages contain electrical information on important considerations swapping electrical meters, there are other considerations to address.

Wireless smart meters are devices to read electrical consumption from remote locations. Smart Meter Fact Sheets states the meter base itself reflects the frequencies from the Smart Meter away from the residence and people are safe with distance. They are referring to the meter ONLY as an end use device. They are not incorporating the wireless network that makes the meter work.

The fact sheet left out the Smart Meter Routers, collectors, antennas that communicate with the meters. Those electromagnetic wavelengths are high speed frequencies hitting the building from top to bottom and going through the walls of the residence. Coverage can be 100s of sq. miles and every building in the coverage area is caught in the EMF.

The ramifications are high speed vibration of electrical systems, structural components, fire separations and electromagnetically inducing Pacemakers as well as electrical systems. That puts the building in violation of Building Code. High speed vibrations billions of times per second equates to molecular earthquakes. The supporting science is basic electricity.

Here is what a 60 Hz frequency problem looks like in an insured industrial application.
http://www.thermoguy.com/pdfs/Electrical_Frequency_Problem_in_Lumbermill.pdf

Medical Services puts in Pacemakers and manufacturer's specifications tell the patient to stay out of an electromagnetic field. Utilities are taking the electromagnetic fields to the patient's home.

Our jobs as government trained electrical professionals are to report to the authority.

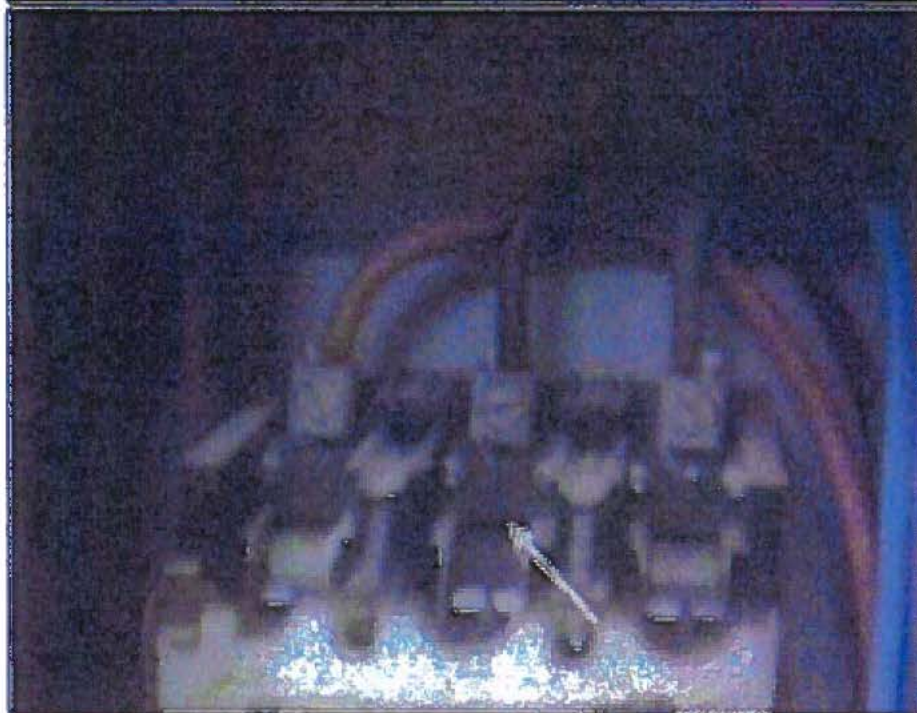
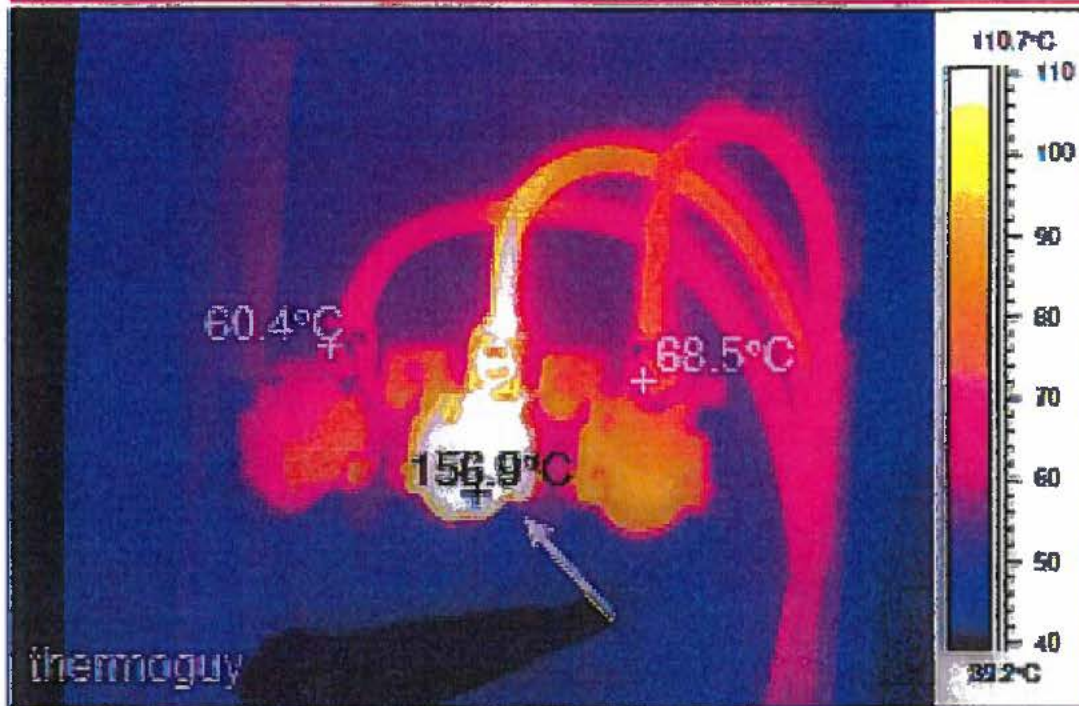
There has been no qualified response on issues recklessly endangering the public and property.

Sincerely,

Curtis Bennett
 Chief Science Officer
 Interprovincial Journeyman Electrician (Red Seal)
 Building Construction Engineering Technologist
 Adjunct Faculty
 Thermogfix Consulting Corporation
www.thermoguy.com/
curtis@thermoguy.com

"Bringing the invisible to light Since 1979"

Wired Connections For Smart Meter Example



Electrical Meter Bases have wired connections as well as static. Qualified electrical professionals would check ALL connections when the meter is pulled (safely and working with the home owner) Before installing the new meter any electrical problems would be identified and repaired, even replacing the meter based if required. There are no compromises electrically or there will be failure with consequences that include fires that may happen immediately or later.

In the electrical example above, a faulty wired connection welded in a closed position so they couldn't turn the switch off. It required changing the disconnect or there would have been electrical failure resulting in explosion, fire or both.

An unqualified professional wouldn't know how to address the problem. The arrow is highlighting discoloration associated with heat.

EXPOSED - Electronic Utility Meters A Fire Safety, Health, Privacy and Security Threat

Michele Hertz, Founder - Stop Smart Meters NY

Introduction

In the mid-2000s, utility companies launched a mass effort to replace electro-mechanical analog utility meters with "smart" electronic utility meters.

Utilities and government regulators, with the support of several large environmental groups, including the Environmental Defense Fund, the Natural Resources Defense Council and the Sierra Club, rushed to embrace electronic utility meters. This was done with no public input. It was done without considering the health and safety risks of imposing millions of electronic communication metering devices on an electric utility system that was set up for non-electronic analog meters.

This paper exposes the reckless decision, by meter manufacturers, utility companies and government regulators to eliminate life-saving electrical safety features from the design of electronic meters.

Dangerous Electronic Meters vs. Safer Analog Meters

Electronic meters that contain electronic components are also named "smart," AMR, ERT, AMI, digital opt-out, digital radio-off, Power Line Carrier (PLC) and more. Electronic meters are designed to harvest personal utility usage data from consumers to sell to third parties and for cutting meter-reading costs. These meters consume electricity and have no proven environmental benefits.

Electronic meters contain fragile miniaturized electronic circuit boards that are prone to igniting and exploding when exposed to utility-side electrical fire risk events and outdoor weather conditions. These meters pose unacceptable hazards because they lack essential electrical safety components - circuit breakers¹ and surge arrestors.²

The installation of electronic meters on homes and businesses has resulted in hundreds of thousands of reported health,³ fire,⁴ electrical,⁵ privacy,⁶ and overbilling complaints and incidents. According to cyber-security experts, electronic meters are an unaddressed and looming threat to the utility grid and public safety.⁷ Many thousands of these meters have been recalled.⁸

By contrast, mechanical analog utility meters have been in place in the United States for decades. They have been the subject of few, if any, reported complaints or unsafe incidents. Analog meters are *electrical*⁹ and contain no ignitable or energy consuming *electronic*¹⁰ components. Analog meters protect privacy and pose no cyber-security breach risks. Analog meters have no history of being recalled.

Missing Safety Features Raise Red Flags on Electronic Utility Meter Scheme

Electronic meters are a threat to public health and safety because they lack surge arrestors and circuit breakers. Without these essential electrical safety features electronic meters are an open portal for dangerous electrical fire risk conditions to enter into and overwhelm a consumers' electrical system.

That is among the reasons why, after less than a decade of use, electronic utility meters have caused personal injuries and deaths,¹¹ interior and exterior home and business fires, extensive property damage and electrical equipment damage.

Electronic Meters Lack Surge Arrestors

Missing from electronic meters are adequate surge arrestors. Surge arrestors protect electronics from extreme voltage surges. This in turn prevents fires and electrical equipment damage.

Although the tiny electronic components inside electronic meters may be fitted with tiny surge arrestors, there is no evidence that these surge arrestors were designed to withstand extreme voltage surges from the utility-side electrical grid. Nor would these tiny surge arrestors help protect consumer-side electrical circuitry from extreme utility-side voltage surges.

By contrast, an analog meter contains surge arrestors that are appropriately designed to specifically protect consumer-side electrical circuitry from the damaging effects of utility-side voltage surges. The surge arrestors inside analog meters are part of a conductive metal design that intercepts and directs utility-side electrical surges to ground before these damaging surges enter the consumer's electrical system. An analog meter does in fact act as a surge arrestor and protects consumers' electrical circuitry.

Electronic Meters Lack Circuit Breakers

Another distressing oversight in the design of electronic meters is the lack of circuit breaker protection. Contrary to common assumptions, circuit breaker panels in homes and businesses do not provide protection from electrical fire hazards that originate upstream from a circuit breaker panel on the utility grid or at an electronic meter.

Circuit breakers in such a panel—the point at which electricity enters into a building's electrical circuitry — are designed to "trip" in one direction, only from an electrical fire risk event, that originates downstream from the circuit breaker panel, on a consumer's electrical system.

Unlike an analog meter, electronic meters are not designed to protect a consumers' electrical circuitry. Where an electronic meter is installed, there is no circuit breaker protection because a circuit breaker will not trip from an electrical fire risk event that occurs upstream from the circuit panel, on the utility-side distribution grid or at the electronic meter.

Moreover, analog meters contain no flammable electronic parts. Analog meters do not need circuit breaker protection.

According to the National Fire Protection Association standards, (NFPA 70: National Electrical Code (NEC), Article 240 - Overcurrent Protection - 240.4 Protection of Conductors),¹² any device that contains electronic components would be required to be connected to a circuit breaker if it were installed downstream from the consumer's circuit breaker panel.

Utilities' Are Tampering with Evidence of Fires Caused by Electronic Meters

Hazardous electrical events that either originate on the utility-side distribution grid or at electronic meters are overheating and/or igniting electronic meters, blowing through the breaker panels, bypassing consumers' circuit breakers, destroying appliances and causing electrical fire conditions, which **ONLY THEN** cause the circuit breakers to trip in a back-flow response after these events have already occurred. These destroyed appliances are the symptom, not the cause of these fires.

Alarmingly, there are numerous reports of unlawful tampering with evidence by utility companies, which have removed meters after a fire has occurred and before fire inspectors can examine these devices. This has impeded investigations of fires caused by electronic meters.¹³ It has also led fire inspectors to blame electrical appliances for causing electrical fires, when in fact the appliances failed only after being damaged by a hazardous electrical condition that originated on the utility-side distribution grid and/or the electronic meter.

Electronic Utility Meters Were Never Tested For Safety

There is no evidence that the electronic components inside electronic meters were ever tested for tolerance to extreme utility-side voltage surges, other electrical fire risks or outdoor weather conditions. There is also no evidence that electronic meters were ever safety tested *in-situ*, connected to utility-side distribution wiring, consumers' electric circuit panels and consumers' electrical circuitry, or the unpredictable and varying conditions that take place within these systems.¹⁴

State regulators rushed to approve electronic meters based on Federal Communications Commission (FCC) Part 15 testing. This test was designed to detect interference. It is set up for wireless devices that employ power cords. This test is improper for electronic utility meters because an electronic meter does not employ a power cord. Instead of developing proper testing for electronic utility meters, the FCC-accredited laboratory workers altered the electronic meter by fastening a power cord to it. They altered the meter to fit a test modality that was not designed for utility meters. This laboratory set-up, in isolated conditions, failed to include utility-side wiring, a consumers' circuit panel and consumers' electrical circuitry. Together the colossal system design failures and negligent testing oversights have resulted in suffering and loss of life and property.

The only proper way to test electronic utility meters is *in-situ*. It has never been done. This may be why it was not discovered that electronic meters lack circuit breakers and surge arrestors.

Electronic Meters Are Not Underwriter's Laboratory Approved

All of these facts demonstrate gross negligence, if not recklessness or even willful misconduct, by the designers of electronic meters and the utility companies that are installing them, as well as the government regulators, including the FCC, that rushed to approve faulty meters before any safety testing was performed. Perhaps all of the risks associated with electronic meters explain why Underwriter's Laboratories has not approved them.

Conclusion

In the mid-2000s, utility companies, government regulators and several large environmental groups dispensed with essential public health, safety, privacy and security considerations to embrace electronic utility meter technology that has no proven consumer or environmental benefits.

The public is unaware that it is paying for electronic meters that cause fires, electrical problems, radiofrequency radiation emissions and privacy and cyber-security risks. They do not know that utility companies, government regulators and environmental groups are actively promoting dangerous utility meter technology that is destroying lives and properties.

Electronic meters should have never been approved, but now they must be recalled.

In the meantime, for its protection, the public must assert its right to refuse electronic meters and accept only analog meters without any fee or penalty.

¹ Dictionary of Construction - Definition of Circuit Breakers:
<http://www.dictionaryofconstruction.com/definition/circuit-breaker.html>

² Dictionary of Construction - Definition of Surge Arrestors:
<http://www.dictionaryofconstruction.com/definition/surge-arrester.html>

³ Smart Meter Awareness: The Health Argument Against Wireless Smart Meters
<https://smartgridawareness.org/2014/04/20/the-health-argument-against-wireless-smart-meters/>

⁴ Smart Meter Fires:

Testimony of Norman Lambe—Insurance and "Smart" Meter Fires:
http://stopsmartmetersny.org/images/Testimony_Norman_Lambe_Final.2.pdf

EMF Safety Network: Fires Report:
<http://emfsafetynetwork.org/smart-meters/smart-meter-fires-and-explosions/>

EMF Safety Network: Smart Meter Fires, Privacy, Cyber Security and Health Risks:
<http://emfsafetynetwork.org/smart-meters/>

Brian Thiesen: Smart Meter Fires Explained
<https://www.youtube.com/watch?v=fBDgZjR4qHQ>

Smart Meters Linked to 13 Fires in Ontario, Fire Marshal says:
https://www.thestar.com/news/canada/2014/08/08/smart_meters_linked_to_13_fires_in_ontario_fire_marshall_says.html

IEEE Spectrum - Smart Meter Fires
<http://spectrum.ieee.org/energywise/energy/the-smarter-grid/smart-meter-fire-reports>

⁵ Nerve Disrupting Frequencies Radiation from "Smart" Meters
<https://www.youtube.com/watch?v=4NTSejgsjTc>

⁶ Smart Grid Awareness: Smart Meter Privacy Invasion ALERT
<https://smartgridawareness.org/2014/05/16/smart-meter-privacy-invasion-alert/>

⁷ Smart Grid Awareness: Puppet Attack: Newly Discovered Cyber Security Threat for Smart Meters
<https://smartgridawareness.org/2016/01/13/puppet-attack-new-cyber-threat-for-smart-meters/>

⁸ Smart Meter Recalls:

Smart Meter Recall Cost Balloons to \$47 M, SaskPower says...

<http://www.cbc.ca/news/canada/saskatchewan/smart-meter-recall-cost-balloons-to-47-m-saskpower-says-1.2724304>

More Fires, More Smart Meter Recalls For Sensus

<https://www.greentechmedia.com/articles/read/more-fires-more-smart-meter-recalls-for-sensus>

⁹ Oxford Dictionary - Definition of *Electrical*: Operating by or producing electricity.

¹⁰ Oxford Dictionary - Definition of *Electronic*: (Of a device) having or operating with the aid of many small components, especially microchips and transistors, that control and direct an electric current.

¹¹ Stop Smart Meters: Man Dies in Dallas House Fire Attributed to Oncor Smart Meter

<http://stopsmartmeters.org/2015/02/04/man-dies-in-dallas-house-fire-attributed-to-oncor-smart-meter/>

¹² National Fire Protection Association:

<http://www.nfpa.org/codes-and-standards>

¹³ Smart Grid Awareness: Utilities Remove Burned Smart Meter Evidence from Fire Scenes

<https://smartgridawareness.org/2015/07/28/utilities-remove-burned-smart-meter-evidence-from-fire-scenes/>

¹⁴ Stop Smart Meters NY: The Isotrope Report:

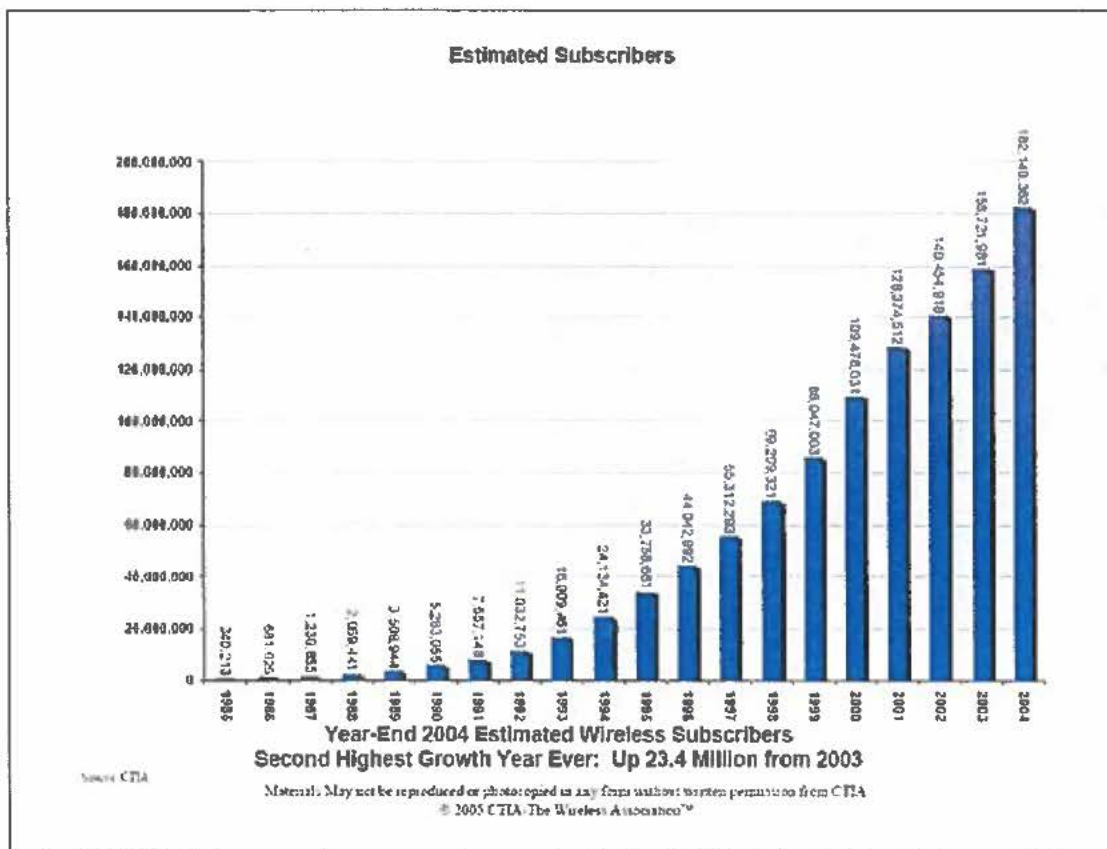
http://www.stopsmartmetersny.org/images/Report_on_Examination_of_Selected_Sources_of_Electromagnetic_Fields_at_Selected_Residences_20140301.pdf

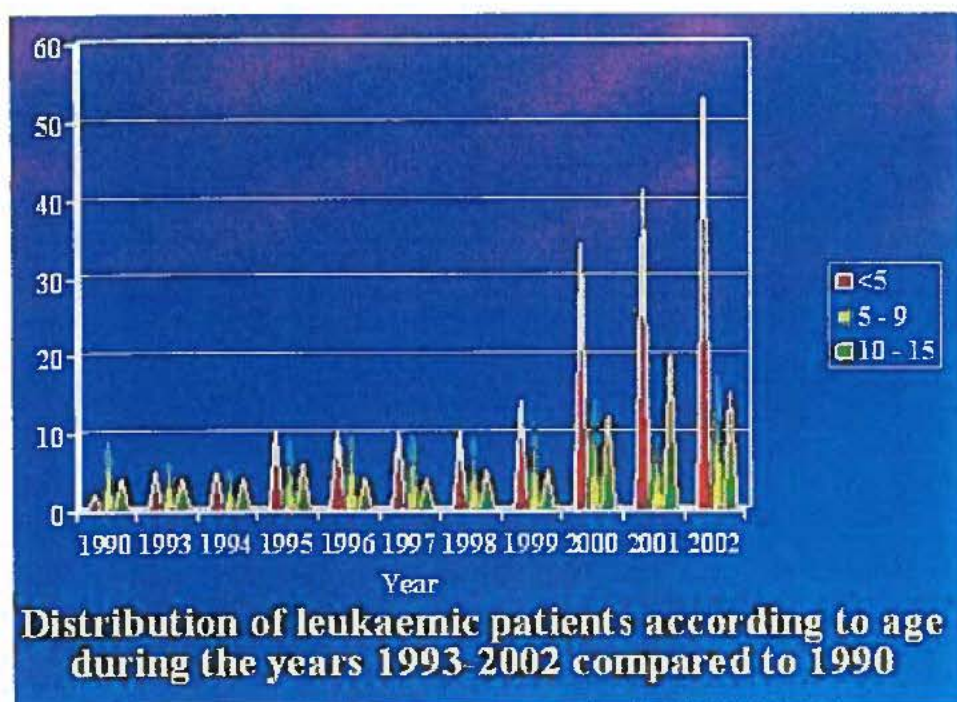
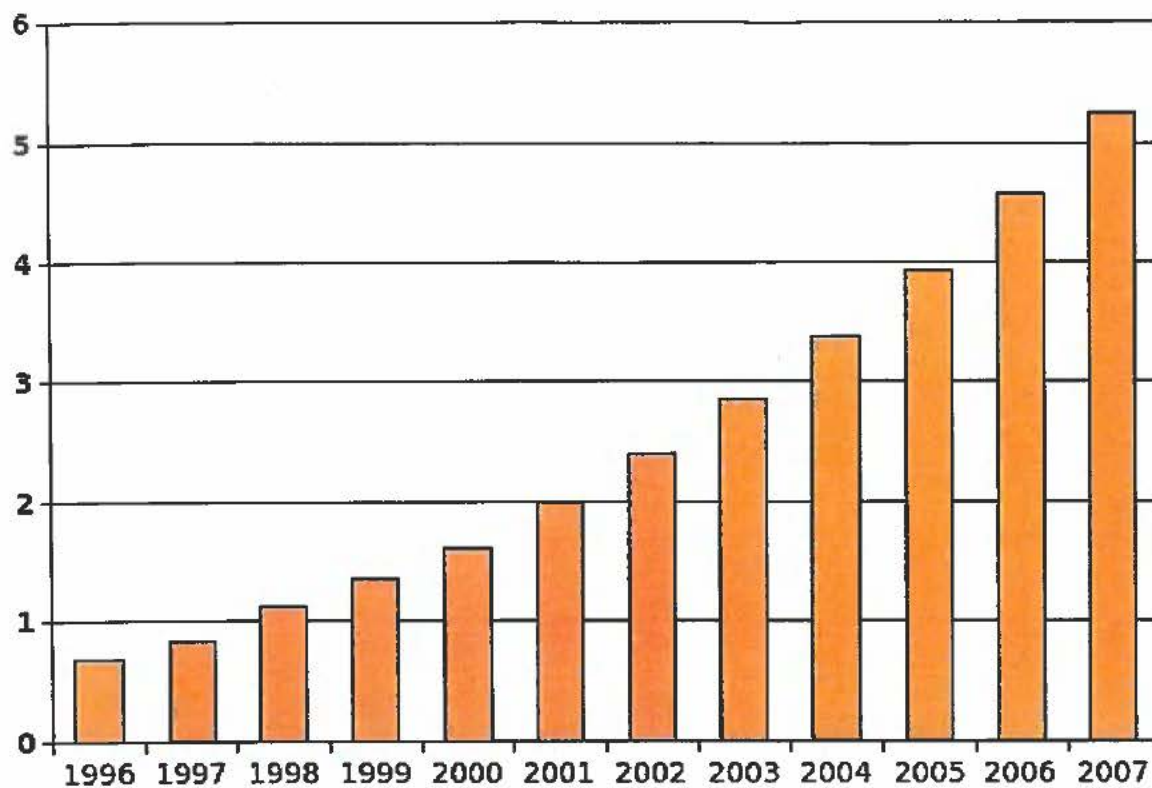
Timetable comparison charts

Correlation of wireless technology and diseases

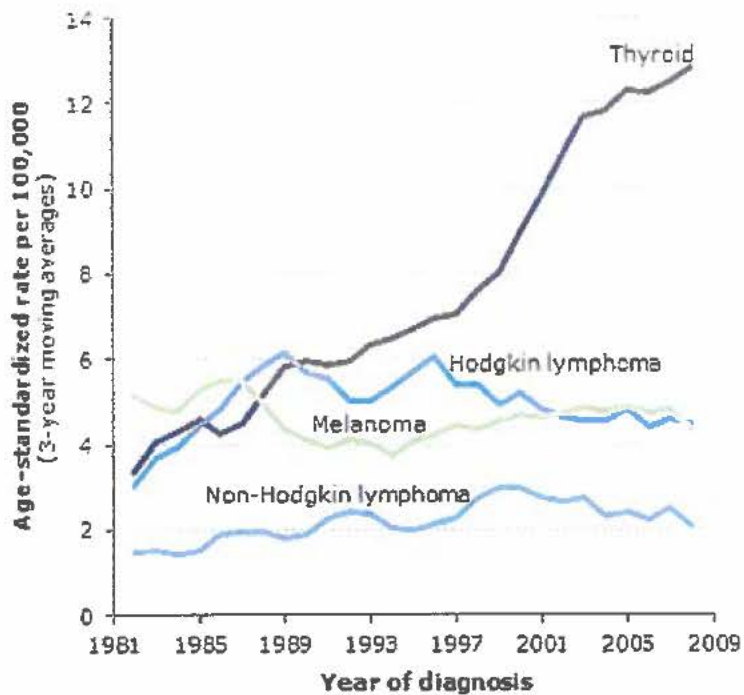
Upper left chart may be used as the reference chart to compare with the other charts.

Timetables for AC magnetic field exposure show very similar patterns.

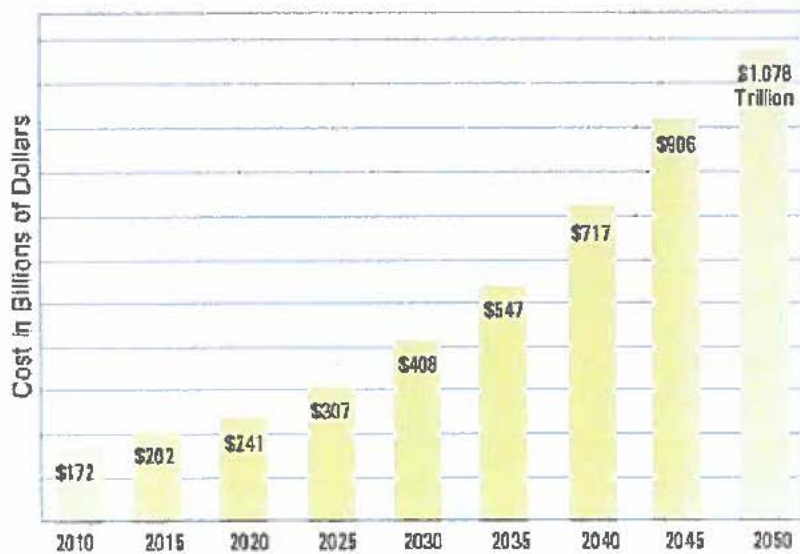


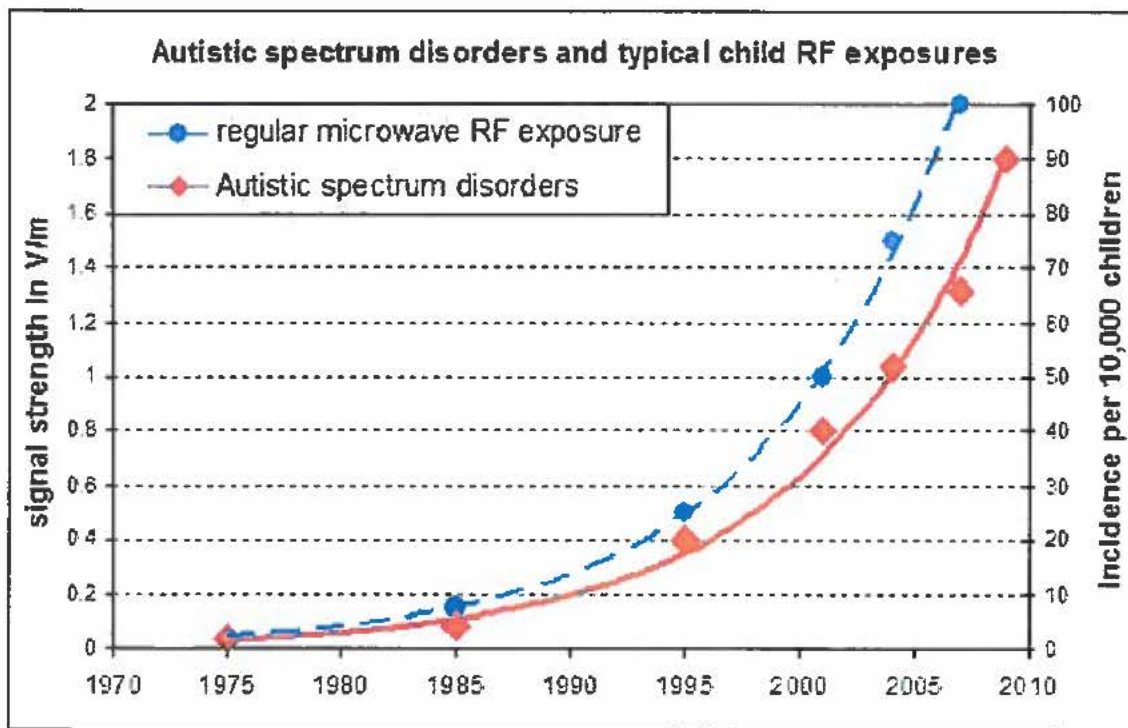
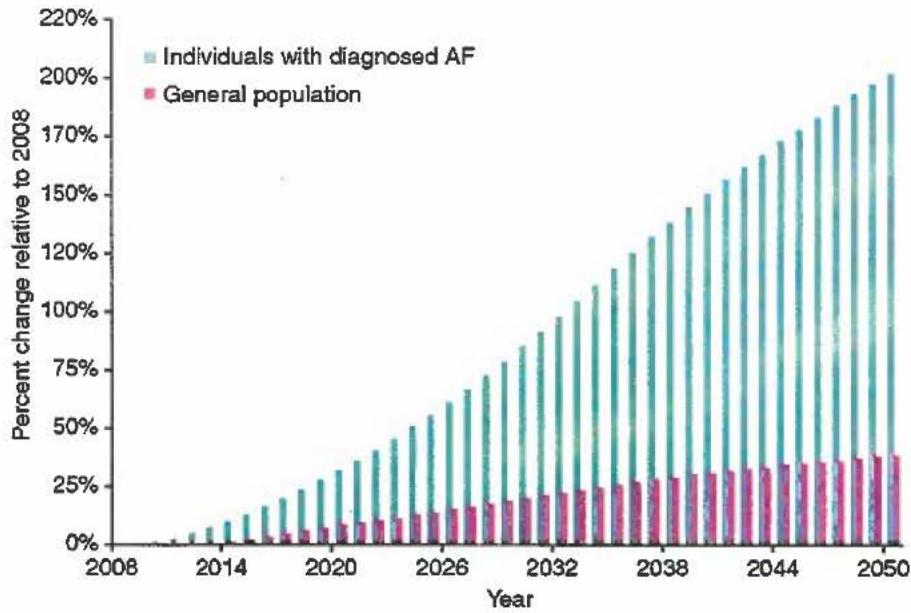


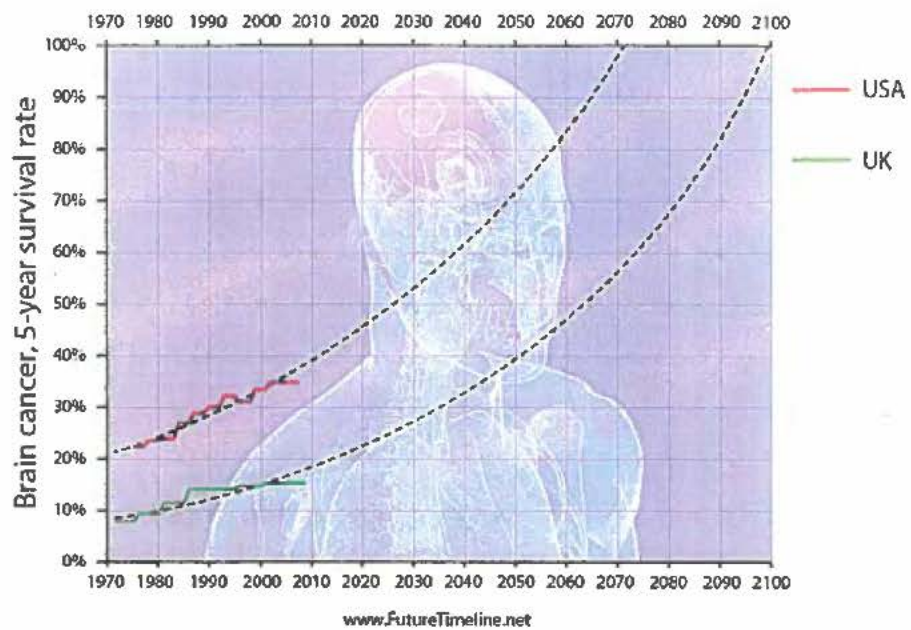
Incidence rates for four common cancers diagnosed in females aged 15-29, Ontario, 1981-2009



Source: Cancer Care Ontario (Ontario Cancer Registry, 2012)







Email from Dr Robert Baan, the principal author of the 2011 IARC Monograph on the carcinogenicity of radiofrequency radiation, in which he interprets the 2B classification of RFR as applicable to all form of RFR exposures, including Smart Meters and Wi-Fi:

Subject: EMF Class 2B Classification

Dear Dr Hudson,

Thank you for your message, which was forwarded to me, and to which I would like to respond as follows. The IARC Working Group classified "Radiofrequency Electromagnetic Fields" (RF-EMF) as possibly carcinogenic to humans (Group 2B). The information that formed the main basis for this evaluation was found in epidemiological studies on cell-phone use, where a slightly increased risk for glioma (a malignant form of brain cancer) and acoustic neuroma (a non-cancerous type) was reported among heavy users. There were some indications of increased cancer among radar-maintenance workers(occupational exposure), but no reliable data from studies among, e.g., people living close to base-station antennas, radio/TV towers, etc (environmental exposure). Although the key information came from mobile telephone use, the Working Group considered that the three types of exposure entail basically the same type of radiation, and decided to make an overall evaluation on RF-EMF, covering the whole radiofrequency region of the electromagnetic spectrum. In support of this, information from studies with experimental animals showed that effects on cancer incidence and cancer latency were seen with exposures to different frequencies within the RF region. So the classification 2B, possibly carcinogenic, holds for all types of radiation within the radio frequency part of the electromagnetic spectrum, including the radiation emitted by base-station antennas, radio/TV towers, radar, Wi-Fi, smart meters, etc. An important point is the radiation level. The exposure from cellular phones (personal exposure) is substantially higher and much more focused (usually on the brain) than exposures from radio/tv towers, antennas, or Wi-Fi. I hope this is useful. Thank you for your interest in our work.

Sincerely yours,

Robert A Baan PhD The IARC Monographs IARC, Lyon, FRANCE

Sunday, February 1, 2015

Health Experts Caution About Smart Meters

"[Health Experts Caution About Smart Meters](#)" (9/12/2012), one of my most popular press releases, publicized an open letter that discusses why precaution is warranted with regard to adoption of wireless smart meters. The letter which was signed by 54 scientists and medical professionals was originally published by *La Maison du 21e siecle*. The letter is reprinted below.

Smart Meters: Correcting the Gross Misinformation

La Maison du 21e siecle, June 11, 2012

Quebec-based magazine [La Maison du 21e siecle](#) asked physician [David O. Carpenter](#), former founding dean of the University at Albany (NY)'s School of Public Health, to comment on an open letter published in the Montreal daily *Le Devoir* on May 24 2012. This letter claimed wireless smart meters pose no risk to public health. More than fifty international experts endorsed the following rebuttal.

Dr David O. Carpenter, founder, University at Albany (NY) School of Public Health

We, the undersigned are a group of scientists and health professionals who together have coauthored hundreds of peer-reviewed studies on the health effects of electromagnetic fields (EMFs). We wish to correct some of the gross misinformation found in the [letter regarding wireless "smart" meters that was published in the Montreal daily Le Devoir on May 24](#). Submitted by a group [Quebec engineers, physicists and chemists](#), the letter in question reflects an obvious lack of understanding of the science behind the health impacts of the radiofrequency (RF)/microwave EMFs emitted by these meters.

The statement that « Thousands of studies, both epidemiological and experimental in humans, show no increase in cancer cases as a result of exposure to radio waves of low intensity... » is [false \(1\)](#). In fact, [only a few such studies — two dozen case-control studies of mobile phone use](#), certainly not thousands, have reported no elevations of cancer, and most were funded by the wireless industry. In addition, these reassuring studies contained significant experimental design flaws, mainly the fact that the populations followed were too small and were followed for a too short period of time.

Non industry-funded studies have clearly demonstrated a significant increase in cancer cases among individuals who have suffered from prolonged exposure to low-level microwaves, transmitted notably by radio antennas. The effects were best documented in meta-analyses that have been published and that include grouped results from several different studies: [these analyses](#) consistently showed an [increased risk of brain cancer](#) among regular users of a cell phone who have been exposed to microwaves [for at least ten years](#). Children and youths are especially vulnerable (2). For example, the [2009 Hardell-Carlberg study](#) reported a consistent association between use of mobile or cordless phones and two types of head tumors, astrocytoma grade I-IV and acoustic neuroma. The authors »found an especially high risk for persons that started use of mobile or cordless phones before the age of 20 years, although based on low numbers «.

Brain Cancer Rates

Furthermore, the argument that brain cancer rates do not indicate an overall increase in incidence is not evidence that cell phones are safe: the latency for brain cancer in adults after environmental exposure can be long, up to 20-30 years. Most North Americans haven't used cell phones extensively for that long. The evidence of the link between long-term cell phone use and brain cancer comes primarily from Northern Europe, where cell phones have been commonly used since the 1990s. Nevertheless, the [most recent collection of primary brain tumors mined from](#)

[pathology units in Australia](#) showed brain cancer incidence rose by about 35% between 2000 and 2008 in the Australian Capital Territory and New South Wales (total population : more than 7 million).

In May 2011, after reviewing the published scientific literature regarding cancers affecting cell phone users, [the International Agency for Research on Cancer \(IARC\) classified radiofrequency radiation as a 2B, possible human carcinogen](#). Despite the absence of scientific consensus, the evidence is sufficiently compelling for any cautious parent to want to reduce their loved one's exposure to RF/microwave emissions as much as possible, as recommended by [various countries](#) such as Austria, Belgium, [Germany](#), [Russia](#) and the [United Kingdom](#).

Electrosensitivity

Public fears about wireless smart meters are well-founded. They are backed by various medical authorities such as those of the [Santa Cruz County \(California\) Public Health Department](#). These authorities are worried about the growing number of citizens who say they have developed [electrohypersensitivity \(EHS\)](#), especially since for many of them, the symptoms developed after the installation of such meters (it takes some time for most people to link the two events).

Since the turn of the millennium, people are increasingly affected by ambient microwaves due to the growing popularity of wireless devices such as cell phones and Wi-Fi Internet. Therefore, the mass deployment of smart grids could expose large chunks of the general population to alarming risk scenarios without their consent. According to [seven surveys done in six European countries between 2002 and 2004, about 10% of Europeans have become electrosensitive](#). The most famous person to [publicly reveal her electrosensitivity](#) is [Gro Harlem Brundtland](#), formerly Prime Minister of Norway and retired Director of the World Health Organization (WHO).

[While there is no consensus on the origins and mechanisms of EHS](#), many [physicians and other specialists around the world](#) have become aware that EHS symptoms (neurological dermatological, acoustical, etc.) seem to be triggered by exposure to EMF levels well below current international exposure limits, which are established solely on short-term thermal effects (3). Organizations such as the [Austrian Medical Association](#) and the [American Academy of Environmental Medicine](#) have recognized that the ideal way to treat of EHS is to reduce EMF exposure.

Therefore, caution is warranted because the growing variety of RF/microwave emissions produced by many wireless devices such as smart meters have never been tested for their potential biological effects.

Well-known bioeffects

While the specific pathways to cancer are not fully understood, it is scientifically unacceptable to deny the weight of the evidence regarding the increase in cancer cases in humans that are exposed to high levels of RF/microwave radiation.

The statement that « there is no established mechanism by which a radio wave could induce an adverse effect on human tissue other than by heating » is incorrect, and reflects a lack of awareness and understanding of the scientific literature on the subject. In fact, [more than a thousand studies](#) done on low intensity, high frequency, non-ionizing radiation, going back at least fifty years, show that some biological mechanisms of effect do not involve heat. This radiation sends signals to living tissue that stimulate biochemical changes, which can generate various symptoms and may lead to diseases such as cancer.

Even though RF/microwaves don't have the energy to directly break chemical bonds, unlike ionizing radiation such as X-rays, there is scientific evidence that this energy can cause DNA damage indirectly leading to cancer by a

combination of biological effects. [Recent publications](#) have documented the generation of free radicals, [increased permeability of the blood brain barrier](#) allowing potentially toxic chemicals to enter the brain, induction of genes, as well as altered electrical and metabolic activity in human brains upon application of cell phone RF/microwaves similar to those produced by smart meters.

These effects are cumulative and depend on many factors including RF/microwave levels, frequency, waveform, exposure time, biovariability between individuals and combination with other toxic agents. Clear evidence that these microwaves are indeed bioactive has been shown by the fact that low-intensity EMFs have proven clinically useful in some circumstances. Pulsed EMFs have long been used to successfully [treat bone fractures](#) that are resistant to other forms of therapy. More recently, frequency-specific, amplitude-modulated EMFs have been found useful to treat [advanced carcinoma](#) and chronic pain.

High frequency EMFs such as the microwaves used in cell phones, smart meters, Wi-Fi and cordless “DECT” phones, appear to be the most damaging when used commonly. Most of their biological effects, including symptoms of electrohypersensitivity, can be seen in the damage done to cellular membranes by the [loss of structurally-important calcium ions](#). Prolonged exposure to these high frequencies may eventually lead to cellular malfunction and death.

Furthermore, malfunction of the parathyroid gland, located in the neck just inches from where one holds a cell phone, may actually cause electrohypersensitivity in some people by reducing the background level of calcium ions in the blood. RF/microwave radiation is also known to [decrease the production of melatonin](#), which protects against cancer, and to [promote the growth of existing cancer cells](#).

Early warning scientists attacked

In recommending that the Precautionary Principle be applied in EMF matters, the European Environment Agency’s Director [Jacqueline McGlade wrote in 2009](#): “We have noted from previous health hazard histories such as that of lead in petrol, and methyl mercury, that ‘early warning’ scientists frequently suffer from discrimination, from loss of research funds, and from unduly personal attacks on their scientific integrity. It would be surprising if this is not already a feature of the present EMF controversy... » Such unfortunate consequences have indeed occurred.

The statement in the *Le Devoir* letter that « if we consider that a debate should take place, it should focus exclusively on the effects of cell phones on health » is basically an acknowledgement that there is at least some reason to be concerned about cell phones. However, while the immediate exposure from a cell phone is of much greater intensity than the exposure from smart meters, cell phone use is temporary.

Smart meters

[As Australian Associate Professor of neurosurgery Vini G. Khurana reports](#), adverse neurological effects have been reported in people who sustain close proximity to wireless meters, especially under 10 feet (3 metres).

A wireless smart meter produces radiofrequency microwave radiation with two antennas in approximately the same frequency range (900 MHz to 2.4 GHz) as a typical cell tower. But, depending on how close it is to occupied space within a home, a smart meter can cause much higher RF exposures than cell towers commonly do. If a smart meter is located on a common wall with a bedroom or kitchen rather than a garage wall, for example, the RF exposure can be the same as being within 200 to 600 feet distance of a cell tower with multiple carriers. With both cell towers and smart meters, the entire body is immersed by microwaves that go out in all directions, which increases the risk of overexposure to many sensitive organs such as the eyes and testicles. With a cell phone, people are exposed to microwaves primarily in the head and neck (unless using speaker mode), and [only when the device is turned on or in standby mode](#).

Wireless smart meters typically produce atypical, relatively potent and very short pulsed RF/microwaves whose biological effects have never been fully tested. They emit these millisecond-long RF bursts on average 9,600 times a day with a maximum of 190,000 daily transmissions and a peak level emission two and a half times higher than the stated safety signal, as the California utility [Pacific Gas & Electric recognized](#) before that State's Public Utilities Commission. Thus people in proximity to a smart meter are at risk of significantly greater aggregate of RF/microwave exposure than with a cell phone, not to mention the cumulative exposure received by people living near multiple meters mounted together, pole-mounted routers or utility collector meters using a third antenna to relay RF signals from 500 to 5,000 homes.

[A technical study performed by Sage Associates](#) in California indicates that RF levels from various scenarios depicting normal smart meter installation and operation may violate even the out-of-date US public safety standards which only consider acute thermal effects. This can happen when a person stands close to the meter to read the power consumption, or touches it, or shades the meter face with a hand to better read it. Emissions are also increased by reflective materials, such as stainless steel, other metals and mirrors, which can re-radiate stronger than the otherwise unaltered background. Microwaves are absorbed and dissipated by partially conductive materials, such as cement and special RF shielding paints and fabrics.

In addition to the erratic bursts of modulated microwaves emitted by wireless smart meters transferring usage data to electric, gas and water utilities, wireless as well as wired smart (powerline communication) meters are also a [major source](#) of "dirty electricity" (electrical interference of high frequency voltage transients typically of kilohertz frequencies). Some scientists, such as [American epidemiologist Sam Milham](#), believe that many of the health complaints about smart meters may also be caused by dirty electricity generated by the « switching » power supply activating all smart meters. Since the [installation of filters to reduce dirty electricity](#) circulating on house wiring has been found to relieve symptoms of EHS in some people, this method should be considered among the priorities aimed at reducing potential adverse impacts. Indeed, the Salzburg State (Austria) Public Health Department confirms its concern about the potential public health risk when in coming years almost every electric wire and device will emit such transient electric fields in the kilohertz-range due to wired smart meters.

Rather be safe than sorry

The apparent adverse health effects noted with smart meter exposure are likely to be further exacerbated if smart appliances that use wireless communications become the norm and further increase unwarranted exposure.

To date, there have been few independent studies of the health effects of such sources of more continuous but lower intensity microwaves. However, we know after decades of studies of hazardous chemical substances, that chronic exposure to low concentrations of microwaves can cause equal or even greater harm than an acute exposure to high concentrations of the same microwaves.

This is why so many scientists and medical experts urgently recommend that measures following the Precautionary Principle be applied immediately — such as using wired meters — to reduce biologically inappropriate microwave exposure. We are not advocating the abolishment of RF technologies, only the use of common sense and the development and implementation of best practices in using these technologies in order to reduce exposure and risk of health hazards.

(1) • [Scientific papers on EMF health effects](#)

(2) On Nov. 19 2012, we struck from this letter an error propagated in the media claiming that « In May 2012, the

[U.K.'s Office of National Statistics reported a 50 percent increase in incidence of frontal and temporal lobe tumors in children between 1999 and 2009.](#) »

(3) [Explanation and studies on electrosensitivity](#)

(4) [Governments and organizations that ban or warn against wireless technology](#)

Signers

- [David O. Carpenter](#), MD, Director, Institute for Health & the Environment, University at Albany, USA
- [Franz Adlkofer](#), M.D., Chairman of the [Pandora Foundation](#), Coordinator of the [European Reflex Report](#) on DNA-damage by cellphone radiation, Neuendorf, Germany
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- [Cyril W. Smith](#), PhD, lead author of "Electromagnetic Man", retired from Electronic and Electrical Engineering, University of Salford, UK
- [Morando Soffritti](#), MD,  Scientific Director of the European Foundation for Oncology and Environmental Sciences "B. Ramazzini" in Bologna, Italy
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- [Stelios A. Zinelis](#), MD, Vice-President, Hellenic Cancer Society, Cefallonia, Greece

FOXe report: Smart meter concerns

• Posted: Apr 16, 2014 4:32 PM EDT Updated: Apr 17, 2014 10:53 AM EDT
By Robin Schwartz, Fox 2 News - [email](#)

Smart meters have been installed in 1.5 million homes across Michigan. About 1,900 people have chosen to get an opt-out meter, in which the radio is turned off. An engineer tests the radio frequencies coming from a smart meter. (WJBK) - DTE Energy crews have installed smart meters at 1.5 million homes across Michigan. The new meters are an [advancement](#) in technology and can be read remotely by radio signals, but some homeowners say the meters are intrusive and dangerous.

For example, a fire in Pennsylvania is believed to have started when a smart meter exploded. Some homeowners fear the technology will be used for spying by tracking your energy use, even being able to pinpoint when you're not home. National news reports have indicated that is possible.

Others say the meters also cause health problems.

Jeanette Wagner says a smart meter on her previous house in Kentucky left her temporarily paralyzed. She's since moved to Michigan and lives in a hotel.

"I cannot find a house that doesn't have a smart meter on it, so I don't feel safe," she tells FOX 2's Robin Schwartz.

Leslie Panzica-Glapa says her son, Drew, got sick from the smart meter. He has diabetes and she says his blood sugar levels spiked when the meter went in. She says she also experienced insomnia and terrible headaches.

Schwartz took all the concerns to the General Manager of DTE's [Advanced](#) Meter Program, Bob Sitkauskas.

"We've got 10,000 employees, two million customers. We're not going to install something that we feel is unsafe," he says. He adds that he uses a smart meter in his own home.

DTE adds it would never sell the homeowner's readings, which could lead to the aforementioned spying.

An engineer came to Schwartz's home to test the radio frequencies coming from her smart meter. She was told the amount is less than 1 percent of the maximum exposure allowed by federal guidelines. DTE says research proves the smart meters are not a health concern.

Still, others choose to do their own research.

"The research being handed to us by utility companies is going to be skewed. They can get away with telling you their research shows no health dangers, but it's called "interpretive difference," says Wagner.

Panzica-Glapa chose to remove the meter from her home after her and her son experienced those various ailments. DTE has since threatened a lawsuit.

DTE does, however, have a program that gives customers an option.

Homeowners who don't want a smart meter can opt out, and so far about 1,900 people have. For a fee they can get an opt-out meter, which is the same meter with the radio turned off.

Participating in the opt-out program costs about 70 dollars, plus another \$9.80 a month.

Some say the opt-out meter is just as bad, though, because it creates so-called "dirty electricity."

An appeal is pending for DTE to allow people with health problems to keep old analog meters, instead of the opt-out meters. Some are still fighting to get smart meters banned altogether.

If you are interested in the opt-out program, call 1-800-477-4747.

REVIEW

Commonalities Between COVID-19 and Radiation Injury

Carmen I. Rios,¹ David R. Cassatt, Brynn A. Hollingsworth, Merriline M. Satyamitra, Yeabsera S. Tadesse, Lany P. Taliaferro, Thomas A. Winters and Andrea L. DiCarlo

Radiation and Nuclear Countermeasures Program (RNCP), Division of Allergy, Immunology and Transplantation (DAIT), National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), Rockville, Maryland

Rios, C. I., Cassatt, D. R., Hollingsworth, B. A., Satyamitra, M. M., Tadesse, Y. S., Taliaferro, L. P., Winters, T. A. and DiCarlo, A. L. Commonalities Between COVID-19 and Radiation Injury. *Radiat. Res.* 195, 1–24 (2021).

As the multi-systemic components of COVID-19 emerge, parallel etiologies can be drawn between SARS-CoV-2 infection and radiation injuries. While some SARS-CoV-2-infected individuals present as asymptomatic, others exhibit mild symptoms that may include fever, cough, chills, and unusual symptoms like loss of taste and smell and reddening in the extremities (e.g., “COVID toes,” suggestive of microvessel damage). Still others alarm healthcare providers with extreme and rapid onset of high-risk indicators of mortality that include acute respiratory distress syndrome (ARDS), multi-organ hypercoagulation, hypoxia and cardiovascular damage. Researchers are quickly refocusing their science to address this enigmatic virus that seems to unveil itself in new ways without discrimination. As investigators begin to identify early markers of disease, identification of common threads with other pathologies may provide some clues. Interestingly, years of research in the field of radiation biology documents the complex multi-organ nature of another disease state that occurs after exposure to high doses of radiation: the acute radiation syndrome (ARS). Inflammation is a key common player in COVID-19 and ARS, and drives the multi-system damage that dramatically alters biological homeostasis. Both conditions initiate a cytokine storm, with similar pro-inflammatory molecules increased and other anti-inflammatory molecules decreased. These changes manifest in a variety of ways, with a demonstrably higher health impact in patients having underlying medical conditions. The potentially dramatic human impact of ARS has guided the science that has identified many biomarkers of radiation exposure, established medical management strategies for ARS, and led to the development of medical countermeasures for use in the event of a radiation public health emergency. These efforts can now be leveraged to help elucidate mechanisms of action of COVID-19 injuries. Furthermore, this intersection between COVID-19 and ARS may point to approaches

that could accelerate the discovery of treatments for both. © 2021 by Radiation Research Society

INTRODUCTION

The world is currently in the grip of a global pandemic. As of September 10, 2020, over 50 million cases of COVID-19, the disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), have been reported worldwide. At the forefront of directing research activities focused on combating COVID-19 is the National Institute of Allergy and Infectious Diseases (NIAID) within the U.S. National Institutes of Health (NIH). In April 2020, the NIAID published the *NIAID Strategic Plan for COVID-19 Research*² describing NIAID's efforts to better understand SARS-CoV-2 and to accelerate the development of safe biomedical tools. The plan is a well-defined document that focuses on four research priorities: improving fundamental knowledge of SARS-CoV-2 and COVID-19; supporting the development of diagnostics and assays; characterizing and testing therapeutics; and developing safe and effective vaccines against SARS-CoV-2. A detailed research plan for each priority area is described in the document.

The novelty of the 2019 novel coronavirus disease (COVID-19) is underscored by the fact that there are no FDA-approved or licensed therapeutics specific for coronaviruses. The traditional drug development pathway for therapeutics (and diagnostic tools) can be a years-long process with milestones that require extensive resources to achieve. However, the urgency of the COVID-19 pandemic emphasizes the need for rapid development and testing of promising therapeutic and diagnostic candidates. Approaches to accelerate the development process are being explored in other areas of science where overlapping trends can be

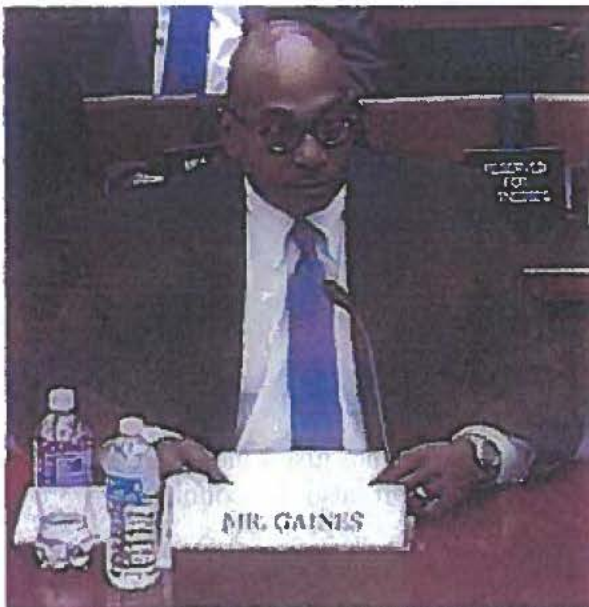
¹ Address for correspondence: RNCP, DAIT, NIAID, NIH, 5601 Fishers Lane, Room 7A69, Rockville, MD 20892-9828 (20852 for express mail); email: carmen.rios@nih.gov.

² NIAID strategic plan for COVID-19 research FY2020–FY2024, April 22, 2020. (<https://bit.ly/3mFnb2e>)

Congressional Testimony: 'Smart' meters have a life of 5 to 7 years.

Posted on [October 29, 2015](#) by [SkyVision Solutions](#)

by *K.T. Weaver, SkyVision Solutions*



Introduction

Testimony was provided last week (October 21, 2015) at a Congressional hearing regarding "cybersecurity for power systems." A surprising admission was provided by one of the expert witnesses that I will discuss here in this article.

Mr. Bennett Gaines testified on behalf of FirstEnergy Service Company. He is a Senior Vice President and the Corporate Services and Chief Information Officer.

Although acknowledging *some* increased cybersecurity risks due to 'smart' meters, Mr. Gaines stated, "But I don't see it as a huge threat."

Then, however, Mr. Gaines made a surprising statement regarding the life expectancy of 'smart' meters as compared to existing traditional meters:

"These devices are now computers, and so they have to be maintained. They don't have the life of an existing meter which is 20 to 30 years. These devices have a life of between 5 to 7 years. And so the challenge that the industry has is making sure they maintain their smart grid environment, not neglect it."

Before proceeding, please watch the video testimony (less than 2 minute clip) for you to gain proper context of the statements:

Although Mr. Gaines doesn't provide an explanation for the short lifetime of the 'smart meter' as compared to a traditional meter, the discussion as it pertains to cybersecurity probably means that the computer-like nature of the 'smart' meter device causes a technological obsolescence which is independent of whether or not the 'smart' meter will actually function for longer periods of time without significant operational failures; thus there is the need to "maintain" a secure "smart grid environment" by upgrading the devices and not neglecting them.

Previously Reported Lifetimes of 'Smart' Meters versus Traditional Analog Electricity Meters

One source I normally quote regarding electric meter expected lifetimes is [TESCO](#), an electric meter testing equipment and services company. Tom Lawton from TESCO in a 2014 [presentation](#) indicated that:

"Electro-Mechanical Meters typically lasted 30 years and more. Electronic AMI meters are typically envisioned to have a life span of fifteen years and given the pace of technology advances in metering are not expected to last much longer than this."

Mr. Gaines from FirstEnergy may be communicating that it is not just a matter of retiring 'smart' meters in order keep pace with technological advances but also to counter a more critical technological and/or cyber threat induced obsolescence.

You can see why I think it is a big deal for a utility executive to mention that the life of a 'smart' meter is only 5 to 7 years. A value of 15 years or more is usually utilized in utility cost-benefit analyses for 'smart' meter deployments. For example, in Illinois, a Commonwealth Edison [press release](#) in 2012 states the following:

"Smart meters also will enable ComEd to achieve greater operational efficiencies, savings that will be passed on to customers. These efficiencies could save customers \$2.6 billion over the 20-year life of the smart meters, according to a cost-benefit analysis by Black & Veatch, a consultancy that evaluated operational cost savings as part of the plan that was filed with the ICC."

Somewhat shockingly, I found a [presentation](#) for Memphis Light, Gas and Water (MLGW) from 2013 mentioning a "25 to 30-year expected equipment life for electric and gas meters" as part of its "Smart Meter 2020 Vision."

Are Current Utility Economic Analyses Based upon Valid Assumptions? Probably Not!

Economic analyses may not be worth the paper they are printed on if the assumed device lifetimes are not correct, and, in fact, if the actual expected lifetimes are off quite significantly. Recognition of this possibility appears to have been made by Northeast Utilities (now Eversource Energy) in its 2014 [filing](#) with the Massachusetts Department of Public Utilities where it states:

"Given that the grid modernization technology sphere is a dynamic, rapidly evolving marketplace, it is also unclear whether the incremental benefits, if any, would begin accruing to customers prior to the implemented AMI platform being rendered obsolete. In any event, the cost remains unjustified by the benefits."

More specifically, in Canada, the Ontario Auditor General's [report](#) in 2014 contained the following criticisms related to 'smart' meter expected lifetimes:

"The estimated useful life for a typical smart meter is 15 years, compared to 40 years for an analog meter. The distribution companies we consulted said the 15-year estimate is overly optimistic because smart meters:

- are subject to significant technological changes, making it difficult to maintain hardware and software for the first-generation meters, which do not have the advanced functions of newer models;*

- have complex features, such as radio communications and digital displays, which are subject to higher malfunction and failure rates;*

- are similar to other types of information technology, computer equipment and electronic devices in that they are backed by short warranty periods and require significant upgrades or more frequent replacements as the technology matures; and*

- will likely be obsolete by the time they are re-verified as required by the federal agency Measurement Canada every six to 10 years."*

We thus have additional information consistent with the Congressional testimony of Mr. Gaines from FirstEnergy.

I have continued to raise questions about the supposed benefits of 'smart' meters as compared to traditional meters. Although most traditional meters do not have advanced functionality, they expose consumers to few if any risks, and the Electric Power Research Institute (EPRI) properly described them as "an amazing of piece of engineering work" as previously reported in a [separate article](#) at this website. More fully, EPRI stated:

"By anyone's assessment, traditional electromechanical meters are an amazing piece of engineering work. Refined over a hundred years, the design of a standard residential electricity meter became an impressive combination of economy, accuracy, durability, and simplicity."

In addition, as Mr. Gaines stated, the current traditional meters could be expected to last 20 to 30 years. The Auditor General for Canada mentioned a 40-year lifetime.

Comparison of Smart Meter and Conventional Meter

	Smart Meter	Conventional Meter
		
Display	Digital meter with numerical display	Analog meter with spinning dials
Measure	How much and when electricity is used (typically hourly with date and time stamp)	How much electricity is used over a billing period (typically one or two months)
Recording	Automated meter reading: meters send data electronically to distribution companies through a wireless network	Manual meter reading: distribution company staff physically visit ratepayer premises to record data
Communication	Two-way communication between meters and distribution companies	No communication capability
Credit for Above: Office of the Auditor General of Ontario		
Useful Lifetime	5 to 7 Years, per Mr. Gaines of FirstEnergy	20 to 30 to 40 Years

Adding insult to injury so to speak, the current traditional meters are being retired and replaced with 'smart' meters well before their useful lifetimes have expired, further wasting taxpayer and/or ratepayer money. Again referencing the Ontario Auditor General's 2014 [report](#):

"The installation of about 4.8 million smart meters in Ontario rendered millions of conventional analog meters obsolete, making it necessary to retire and dispose of them sooner than planned. The distribution companies we consulted said the analog meters they had to scrap were still in good shape and could have been used for another five to 16 more years. The expense of scrapping analog meters became part of the so-called stranded costs, added to the costs of procuring, installing and operating smart-metering systems."

More consumers, consumer groups, and public utility commissions need to be questioning the assumptions used for 'smart' meter project economic analyses. Those based upon inflated values of smart meter lifetimes of 15, 20, or even 30 years are way off base. Has anyone in the utility industry ever heard of the term *due diligence*?

Conclusion

In closing, I have generally held the belief that at some point in the future it was likely that a truly 'smart' meter would eventually be invented allowing a safe and efficient transition of utility

electric meters to the digital age. I just knew we weren't there yet considering the current technology. Based upon the information contained in this article I am no longer sure that is possible. It is not economically viable as a strategy to place hackable, wireless 2-way communicating "computers" on the sides of millions and millions of homes at a cost of billions and billions of dollars. This is an effort which is doomed to financially fail based upon the accelerated obsolescence which will occur within a few years. In many cases, the meters may already be obsolete by the time a large utility deployment has been completed.

Updated Content: February 2016

IRS Rules Certain Smart Meters Can Be Depreciated over Five (5) Years

A follower of this website forwarded me a link to a 2012 IRS National Office Technical Advice Memorandum which provides favorable tax treatment for what would appear to be today's version of a programmable, networked, 2-way communicating smart meter, referred to as "Meter 2" within the IRS Memorandum.

Specifically, smart meters (as Meter 2) have "a class life of 6 years" based upon a determination that they fall within the classification of an "information system."

Based upon the information contained in this blog article, I have since generally stated that I consider smart meters as having an expected lifetime of somewhere between 5 to 10 years, considerably less than the assumptions that utilities use within cost benefit analyses. The IRS Memorandum further supports this assertion.

The IRS Memorandum acknowledges the technological nature of smart meters as "information systems" that have fairly short expected lifetimes and would appear to allow utilities to depreciate smart meters in the U.S. over a period of 5 years for tax purposes and where they may have elsewhere assumed they will have a useful lifetime of between 15 to 20 years for business case purposes. Specifically as stated at a PwC website:

"On November 2 [in 2012], the IRS released Taxpayer Advice Memorandum 201244015 that concludes certain utility smart meters are six-year property and thus eligible for five-year depreciation."

Applicable Links: <https://www.irs.gov/pub/irs-wd/1244015.pdf>; and

<http://www.pwc.com/us/en/tax-services/newsletters/alternative-renewable-energy/certain-smart-meters-can-depreciated-over-five-years.html>

Updated Content: January 2017

I am adding reference to a somewhat dated article from 2012 regarding "Krebs on Security" detailing an FBI Bulletin on smart meter hacking in Puerto Rico. The article is primarily about electricity theft, but my recent re-reading revealed a section adding support to the assertion that smart meters won't have the expected lifetimes that many utilities may think:

Liston said utilities have become accustomed to deploying meters that can last 30 years before needing to be replaced, but that the advanced interactive components being built into modern smart meters requires a much more thoughtful and careful approach to security.

"Traditionally, metering technology has been very cost effective, because much of it is very resilient. But these older devices didn't have a lot of technology in them, and they certainly didn't have wireless connections and things like memory storage," Liston said. "The utilities are still expecting the lifecycle of newer pieces of equipment to be 20 to 30 years, and they're just coming to the realization that some of new stuff deployed is not going to last nearly that long."

Refer to <https://krebsonsecurity.com/2012/04/fbi-smart-meter-hacks-likely-to-spread/>.

Source Material for this Article

Subcommittee on Energy and Subcommittee on Research and Technology Hearing: Cybersecurity for Power Systems, October 21, 2015; full video at https://www.youtube.com/watch?v=V_xuv65vVKs

"Meter Operations in a Post AMI World," TESCO; Field Notes by Tom Lawton, slide 5 at <http://www.slideshare.net/bravenna/meter-operations-in-a-post-ami-world-36336258?related=1>

"ComEd Files Smart Meter Deployment Plan," press release dated April 23, 2012, available for review at https://skyvisionsolutions.files.wordpress.com/2015/10/comed-newsroomreleases_04232012.pdf

"Major U.S. Utility Says 'No Rational Basis' for Mandating Smart Meters" at <https://smartgridawareness.org/2014/02/13/no-rational-basis-for-smart-meters/>

Ontario Auditor General 2014 Report on the Smart Metering Initiative, available for review at <https://skyvisionsolutions.files.wordpress.com/2015/09/ontario-ministry-of-energy-smart-meter-initiative-audit-report.pdf>

"Utility Industry Aware of Safety and Accuracy Issues with Digital Meters for Years," at <https://smartgridawareness.org/2015/06/29/utility-industry-aware-of-issues-with-digital-meters-for-years/>

MLGW "Smart Meter 2020 Vision," May 7, 2013, presentation materials; page 20, available for review at http://www.mlgh.com/images/content/files/pdf/SmartMeter_committee05072013.pdf

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Duke Energy Billing Study

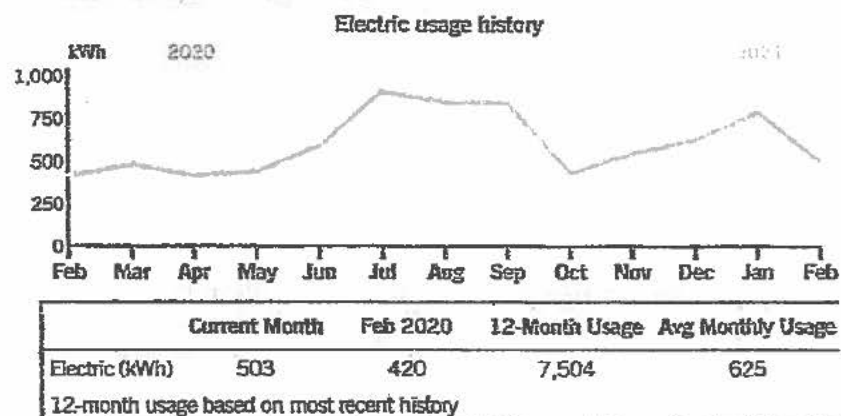
Monthly Statements 225
Time Period 2018-2022
Customer Accounts 16
Home Square Ft 1230 – 3520

Energy Usage Qualifiers

Gas – Min Average monthly usage - 60 Ccf
Electric – Min Average monthly usage - 400 kWh
Gas & Electric or Electric Only Service

Zip Code Areas - 9

45056 Oxford
45140 Loveland
45150 Milford
45202 Cincinnati
45204 Cincinnati
45218 Greenhills
45226 East End
45241 Blue Ash
45251 Colerain Twp



Gas & Electric Monthly Fees

Efficient Home

- 84% (190 of 225) total cost > \$75.
- 54% (122 of 225) total cost > \$90.
- 19% (42 of 225) total cost > \$100.
- 31% (70 of 225) (400-750) kWh efficiency total cost > \$80.
- Non-heat 5 month average gas cost up to 10 times supply cost.

Overall Findings

Panel study electric usage - kWh/monthly average – 628 (median)
Panel study gas usage - Ccf/monthly average – 76 (median)
2020 U. S. electric kWh/monthly average - 893*; Ohio - 903*
Energy efficient homes can't realize actual cost savings when combined with high fixed charges and delivery rider subsidies.

*Energy Information Administration (EIA)

Email SWORT at [REDACTED]

Duke Energy Ohio Gas Tariff

PIPP, Percentage of Income Payment Plan Rider 63
 ETR, Ohio Excise Tax Liability Rider 64 (4.890%)
 AMRP, Accelerated Main Replacement Program Rider 65 (\$2.82/month)
 UE-G, Uncollectible Expense Rider 67
 STR, State Tax Rider 68
 MGP, Manufactured Gas Plant Rider 69
 GCR, Gas Cost Recovery Rider 70
 GCRR, Gas Cost Recovery Rate Rider 71
 CCCR, Contract Commitment Cost Recovery Rider 76
 CEP, Capital Expenditure Program Rider 84 (\$3.69/month)

Duke Energy Ohio Electric Tariff

ETCJA, Electric Tax Cuts and Jobs Act Rider 77
 ESRR, Electric Service Reliability Rider 80 (2.18% x Distribution Charges)
 OET, Ohio Excise Tax Rider 83
 PF, Power Future Rider 84
 USR, Universal Service Fund Rider 86
 UE-GEN, Uncollectible Expense, Electric Generation Rider 88
 BTR, Base Transmission Rider 89
 RTO, Regional Transmission Organization Rider 97
 DSR, Distribution Storm Rider 101
 DCI, Distribution Capital Investment Rider 103 (22.763% x Distribution Charges)
 DR-IM, Infrastructure Modernization Rider 104
 DR-ECF, Economic Competitive Fund Rider 105 (0.60% x Distribution Charges)
 UE-ED, Uncollectible Expense, Electric Distribution Rider 108
 AER-R, Alternative Energy Recovery Rider 110
 RC, Retail Capacity Rider 111
 RE, Retail Energy Rider 112
 SCR, Supplier Cost Reconciliation Rider 115
 EE-PDRR, Energy Efficiency/Peak Demand Response Recovery Rider 119
 DDR, Distribution Decoupling Rider 122
 PSR, Price Stabilization Rider 126
 AMO, Advanced Meter Opt-Out – Res 127 (\$100 one-time + \$30/month)

The delivery riders are derived from customer usage distribution charges.

Billing details - Gas

Billing Period - Apr 13 to May 11	
Meter -	
Duke Energy Delivery	
Service Delivery	
Fixed Delivery Service Charge	\$33.03
Usage-Based Charge	
66.000 CCF @ \$0.03272800	2.16
Gas Delivery Riders	9.96

Billing details - Electric

Billing Period - May 12 to Jun 13	
Meter -	
Duke Energy Delivery	
Service Delivery	
AMI Opt Out Fee	\$30.00
Distribution-Customer Charge	6.00
Distribution-Energy Charge	
948.000 kWh @ \$0.03148200	29.84
Delivery Riders	23.22

How Smart Meters Play a Major Role in Your High Utility Bills

Smart Meters are 2-way transmitting whereas traditional analog meters are 1-way transmitting and use less energy. Unsafe technology includes utility Smart Meters which have been installed by many Ohio utility companies including Duke Energy. Ohio elected officials never propose a path to review the harmful effects from any wireless devices including these Smart Meters. Duke Energy has a well documented history of enforcing the highest number of utility shutoffs and collections among Ohio energy utilities. Many of the shutoffs include "hardship" households that use retail supplier companies. In 2017, shutoffs were reported at 15%.

Smart Meter Components

Surveillance

- Collects usage in real time; Utility can rent, sell, market to 3rd parties.
- Utility aggregation programs are tied in with these Smart Meters and Smart Grids.
- Remote access can turn off electricity with only email or phone call notice.

Overcharges

The outgrowth from the changeover from Analog Meters to AMI Smart meters has resulted in a high volume of collections, disconnects, and legal actions against consumers. There have been rate increases and/or riders approved with the new technology in 2014 and 2017.

- 2009 - Start of Analog Meter replacements.
- 2014 - Finished install of 700,000+ AMI Smart Meters.
- 2016 - With PUCO approval, Duke imposes \$100 setup and \$30/month SM opt-out fee
- 2018 - Replacement of existing AMI meters with new AMI Smart Meters; Expansion of the deployment now at approximately 1 million.
- 2021 - Duke submitted application to PUCO to increase distribution rates.

Health and Safety

- Smart Meters emit Radio Frequency Radiation (RFR).
- RF radiation is biologically-active electromagnetic exposure absorbed into the skin.
- Chronic exposure to wireless radiation has been linked to neurological damage, reproductive effects, cancer, and numerous other health issues.
- Smart Meters installed on homes in close proximity are exposing those residents to extremely high RF levels because of connectivity to neighborhood energy grid.
- Smart Meters don't have surge protectors; Prone to fires and explosions; AMI meters must be properly grounded in order to divert lightning strikes.

Privacy and Security

- Home energy usage tracking data must be kept private and confidential.
- Cyber security risk from hackers using backdoor or calling home mechanisms during software updates; AMI meters need frequent replacement because they are computers.
- Duke Energy distributed network has experienced a significant number of cyber attacks using Smart Meter technology resulting in fines because of cyber security violations.

Duke Energy Monthly Charges

2020-2022

Residential

Elec Tariffs / Distribution(USB) Charges

Exhibit B

Acct#	Zip	Home	Date	Unit	Elec Suppl per kWh	Elec Suppl Total	Elec Tariffs (Rider)	Elec USB Cost	SM Opt Out	% USB Cost	Elec Total Cost
4	45218	1688	2020/12	487	\$0.0534	\$26.01	\$13.05	\$15.33	\$30	85.1%	\$90.39
2	45218	1570	2022/03	479	\$0.0543	\$26.01	\$12.79	\$15.08	\$30	84.8%	\$89.88
5	45202	1275	2021/01	503	\$0.0495	\$24.90	\$13.40	\$15.84	\$30	84.6%	\$90.14
4	45218	1688	2022/01	490	\$0.0556	\$27.24	\$13.03	\$15.43	\$30	84.4%	\$91.70
2	45218	1570	2022/02	519	\$0.0556	\$28.86	\$13.68	\$16.34	\$30	83.7%	\$94.88
2	45218	1570	2021/01	568	\$0.0534	\$30.33	\$14.88	\$17.88	\$30	83.2%	\$99.09
2	45218	1570	2022/01	587	\$0.0556	\$32.64	\$15.17	\$18.48	\$30	82.1%	\$102.29
2	45218	1570	2021/03	546	\$0.0536	\$29.27	\$14.10	\$17.19	\$30	82.0%	\$96.56
4	45218	1688	2021/12	483	\$0.0556	\$26.85	\$12.39	\$15.21	\$30	81.5%	\$90.45
7	45056	1694	2021/01	689	\$0.0534	\$36.79	\$17.58	\$21.69	\$30	81.1%	\$112.06
2	45218	1570	2021/04	597	\$0.0536	\$32.00	\$15.22	\$18.79	\$30	81.0%	\$102.01
2	45218	1570	2020/12	694	\$0.0534	\$37.06	\$17.69	\$21.85	\$30	81.0%	\$112.60
7	45056	1694	2020/12	704	\$0.0534	\$37.59	\$17.93	\$22.16	\$30	80.9%	\$113.68
2	45218	1570	2021/02	608	\$0.0534	\$32.47	\$15.48	\$19.14	\$30	80.9%	\$103.09
4	45218	1688	2021/07	647	\$0.0544	\$35.20	\$16.45	\$20.37	\$30	80.8%	\$108.02
4	45218	1688	2021/08	652	\$0.0544	\$35.47	\$16.57	\$20.53	\$30	80.7%	\$108.57
2	45218	1570	2022/05	715	\$0.0630	\$45.05	\$18.01	\$22.51	\$30	80.0%	\$121.57
2	45218	1570	2021/12	555	\$0.0556	\$30.86	\$13.96	\$17.47	\$30	79.9%	\$98.29
8	45204	1230	2021/03	678	\$0.0536	\$36.34	\$17.02	\$21.34	\$0	79.8%	\$80.70
5	45202	1275	2020/12	793	\$0.0495	\$39.25	\$19.83	\$24.97	\$30	79.4%	\$120.05
1	45218	1910	2022/03	925	\$0.0543	\$50.23	\$23.12	\$29.12	\$36	79.4%	\$144.47
1	45218	1910	2021/04	711	\$0.0536	\$38.11	\$17.76	\$22.38	\$30	79.4%	\$114.25
7	45056	1694	2020/11	496	\$0.0526	\$26.09	\$12.34	\$15.62	\$30	79.0%	\$90.05
3	45218	1878	2021/09	489	\$0.0469	\$22.93	\$12.12	\$15.39	\$33	78.8%	\$89.44
3	45218	1878	2021/07	803	\$0.0469	\$37.66	\$19.90	\$25.28	\$33	78.7%	\$121.84
1	45218	1910	2022/04	840	\$0.0543	\$45.61	\$20.80	\$26.44	\$30	78.7%	\$128.85
2	45218	1570	2021/05	765	\$0.0544	\$41.62	\$18.92	\$24.08	\$30	78.6%	\$120.62
12	45140	1390	2021/06	784	\$0.0544	\$42.65	\$19.33	\$24.68	\$0	78.3%	\$92.66
12	45140	1390	2021/08	846	\$0.0479	\$40.52	\$20.85	\$26.63	\$0	78.3%	\$94.00
1	45218	1910	2021/03	804	\$0.0536	\$43.09	\$19.81	\$25.31	\$30	78.3%	\$124.21
12	45140	1390	2021/09	861	\$0.0479	\$41.24	\$21.17	\$27.11	\$0	78.1%	\$95.52
1	45218	1910	2021/01	1030	\$0.0528	\$54.38	\$25.24	\$32.43	\$30	77.8%	\$148.05
1	45218	1910	2022/05	948	\$0.0631	\$59.82	\$23.22	\$29.84	\$30	77.8%	\$148.88
3	45218	1878	2021/06	893	\$0.0469	\$41.88	\$21.87	\$28.11	\$33	77.8%	\$130.86
12	45140	1390	2021/07	918	\$0.0479	\$43.97	\$22.44	\$28.90	\$0	77.6%	\$101.31
5	45202	1275	2020/10	554	\$0.0495	\$27.42	\$13.53	\$17.44	\$30	77.6%	\$94.39
1	45218	1910	2021/05	891	\$0.0544	\$48.47	\$21.70	\$28.05	\$30	77.4%	\$134.22
1	45218	1910	2022/02	1003	\$0.0556	\$55.77	\$24.42	\$31.58	\$30	77.3%	\$147.77
2	45218	1570	2021/11	570	\$0.0556	\$31.69	\$13.87	\$17.94	\$30	77.3%	\$99.50
6	45241	3460	2021/01	1143	\$0.0508	\$58.06	\$27.78	\$35.98	\$30	77.2%	\$157.82

Distribution Rate (USB)

Elec Fixed Delivery \$6

Elec - \$.031482 per kWh

**Duke Energy Billing Charges
2018-2022
(400 - 750) kWh Usage**

Residential

Exhibit C

Acct#	Zip Code	Home SqFt	Date	Unit kWh	Elec Supply per kWh	Elec Supply Total	Elec Delivery Rider	Elec USB Charge	SM Opt Out	Customer Fees Total
4	45218	1688	2020/01	483	\$0.0978	\$47.24	\$11.07	\$15.21	\$44	\$61.07
3	45218	1878	2020/08	736	\$0.0492	\$36.21	\$16.45	\$23.17	\$37	\$59.45
4	45218	1688	2019/12	565	\$0.0978	\$55.26	\$12.59	\$17.79	\$40	\$58.59
4	45218	1688	2019/11	468	\$0.0978	\$45.77	\$10.07	\$14.73	\$40	\$56.07
2	45218	1570	2018/06	682	\$0.0547	\$37.31	\$18.55	\$17.28	\$30	\$54.55
2	45218	1570	2018/05	678	\$0.0547	\$37.09	\$18.19	\$17.19	\$30	\$54.19
2	45218	1570	2022/05	715	\$0.0630	\$45.05	\$18.01	\$22.51	\$30	\$54.01
2	45218	1570	2018/09	647	\$0.0547	\$35.39	\$18.00	\$16.40	\$30	\$54.00
7	45056	1694	2020/12	704	\$0.0534	\$37.59	\$17.93	\$22.16	\$30	\$53.93
1	45218	1910	2021/04	711	\$0.0536	\$38.11	\$17.76	\$22.38	\$30	\$53.76
2	45218	1570	2020/12	694	\$0.0534	\$37.06	\$17.69	\$21.85	\$30	\$53.69
7	45056	1694	2021/01	689	\$0.0534	\$36.79	\$17.58	\$21.69	\$30	\$53.58
2	45218	1570	2020/09	739	\$0.0526	\$38.87	\$17.58	\$23.27	\$30	\$53.58
2	45218	1570	2021/09	741	\$0.0556	\$41.20	\$17.25	\$23.33	\$30	\$53.25
4	45218	1688	2021/08	652	\$0.0544	\$35.47	\$16.57	\$20.53	\$30	\$52.57
1	45218	1910	2020/04	734	\$0.0547	\$40.15	\$16.46	\$23.11	\$30	\$52.46
4	45218	1688	2021/07	647	\$0.0544	\$35.20	\$16.45	\$20.37	\$30	\$52.45
1	45218	1910	2020/03	686	\$0.0547	\$37.52	\$15.52	\$21.60	\$30	\$51.52
2	45218	1570	2021/02	608	\$0.0534	\$32.47	\$15.48	\$19.14	\$30	\$51.48
2	45218	1570	2021/04	597	\$0.0536	\$32.00	\$15.22	\$18.79	\$30	\$51.22
2	45218	1570	2022/01	587	\$0.0556	\$32.64	\$15.17	\$18.48	\$30	\$51.17
5	45202	1275	2020/11	634	\$0.0495	\$31.38	\$15.16	\$19.96	\$30	\$51.16
3	45218	1878	2021/09	489	\$0.0469	\$22.93	\$12.12	\$15.39	\$33	\$51.12
3	45218	1878	2021/05	453	\$0.0469	\$21.25	\$12.04	\$14.26	\$33	\$51.04
2	45218	1570	2021/01	568	\$0.0534	\$30.33	\$14.88	\$17.88	\$30	\$50.88
3	45218	1878	2020/09	443	\$0.0659	\$29.19	\$11.52	\$13.95	\$33	\$50.52
2	45218	1570	2019/05	672	\$0.0547	\$36.76	\$14.32	\$21.16	\$30	\$50.32
2	45218	1570	2021/03	546	\$0.0536	\$29.27	\$14.10	\$17.19	\$30	\$50.10
2	45218	1570	2021/12	555	\$0.0556	\$30.86	\$13.96	\$17.47	\$30	\$49.96
2	45218	1570	2021/11	570	\$0.0556	\$31.69	\$13.87	\$17.94	\$30	\$49.87
2	45218	1570	2020/05	626	\$0.0546	\$34.18	\$13.83	\$19.71	\$30	\$49.83
2	45218	1570	2022/02	519	\$0.0556	\$28.86	\$13.68	\$16.34	\$30	\$49.68
5	45202	1275	2020/10	554	\$0.0495	\$27.42	\$13.53	\$17.44	\$30	\$49.53
5	45202	1275	2021/01	503	\$0.0495	\$24.90	\$13.40	\$15.84	\$30	\$49.40
2	45218	1570	2020/04	575	\$0.0589	\$33.87	\$13.40	\$18.10	\$30	\$49.40
5	45202	1275	2020/05	602	\$0.0495	\$29.80	\$13.37	\$18.95	\$30	\$49.37
4	45218	1688	2020/04	566	\$0.0589	\$33.34	\$13.25	\$17.82	\$30	\$49.25
4	45218	1688	2020/12	487	\$0.0534	\$26.01	\$13.05	\$15.33	\$30	\$49.05
4	45218	1688	2022/01	490	\$0.0556	\$27.24	\$13.03	\$15.43	\$30	\$49.03
2	45218	1570	2022/03	479	\$0.0543	\$26.01	\$12.79	\$15.08	\$30	\$48.79

Elec Fixed Delivery \$6

Distribution Rate (USB)
Elec - \$.031482 per kWh

Symptoms after Exposure to Smart Meter Radiation

People from coast to coast in the USA, and from one side of the world to the other, are becoming ill after exposure to the radiofrequency radiation emitted by Wireless Smart Meters. Attached are the results of two surveys of the symptoms being reported.

The first survey comes from the United States and includes 318 adults, from 28 states from California to New York, and addresses wireless utility meters that are principally Wireless Smart Meters. The second survey comes from the other side of the world, Victoria, Australia, and includes 92 adults and children, and addresses Wireless Smart Meters exclusively. Altogether, 410 adults and children are included. Both surveys report new or worsened symptoms after the installation of wireless utility meters in a given individual's environment.

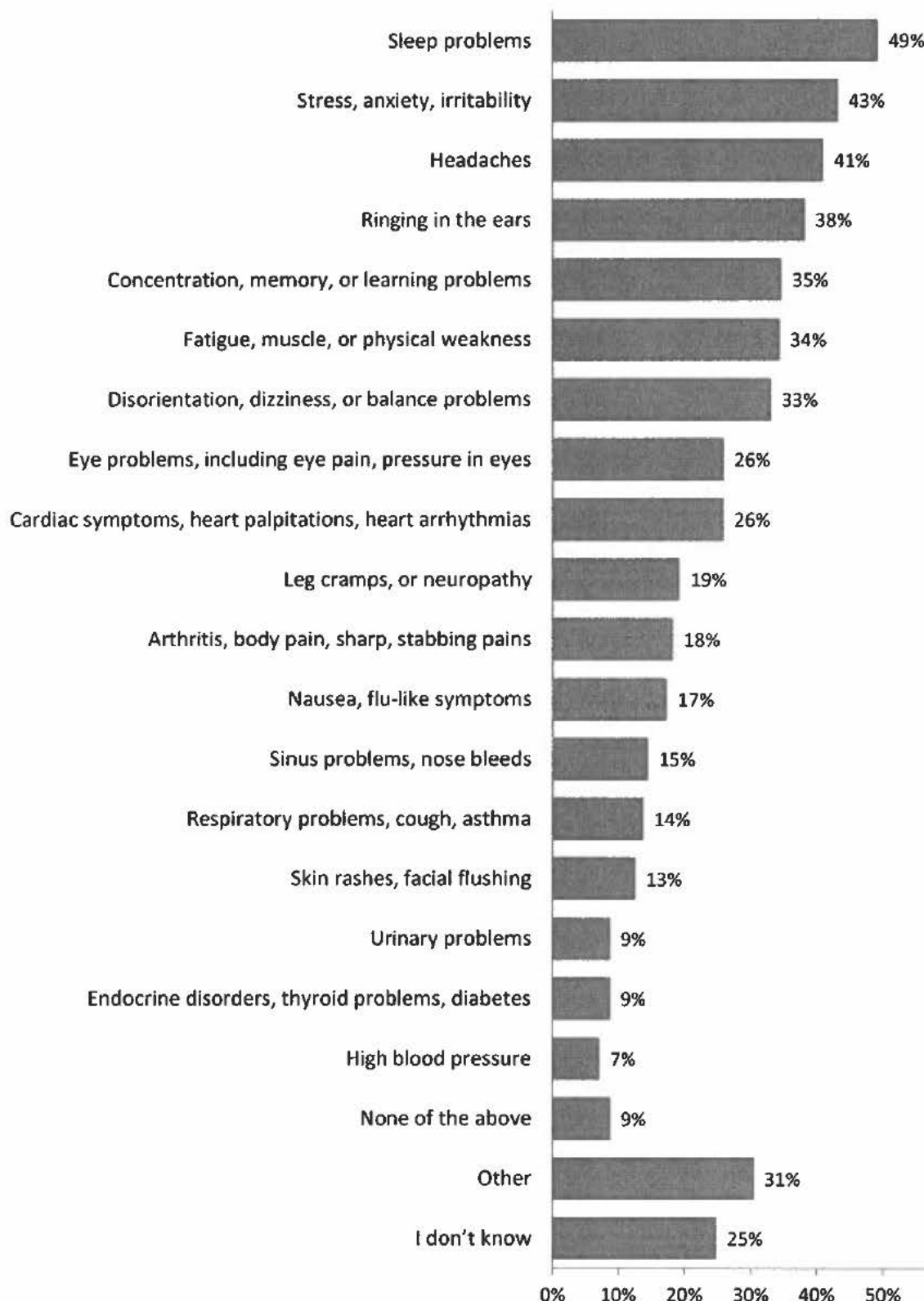
The attached two graphs show the percentage of individuals in each survey who experienced each symptom. The two surveys group the symptoms into somewhat different clusters, but these clusters are similar enough to enable comparison between the surveys. Of the top seven clusters of symptoms in both surveys, six clusters are similar in both description and order of occurrence: (1) sleep disruption; (2) headaches; (3) ringing or buzzing in the ears; (4) fatigue; (5) loss of concentration, memory, and learning ability; and (6) disorientation, dizziness, and loss of balance. Most individuals in the surveys developed multiple symptoms.

The surveys do not tell us how likely a given individual is to become symptomatic after exposure to the radiation from Wireless Smart Meters. But the surveys do tell us which symptoms a person who does become symptomatic is most likely to experience. The many symptoms found reflect the many body systems that are disrupted by such radiation.

A symptom, of course, is something that can be sensed by an individual, and thus can serve as a warning. Unfortunately, many health effects caused by radiofrequency radiation have no early symptoms and thus give no warning. These health effects become evident only after significant harm has been done. Examples are DNA damage, cancer, and reproduction effects.

¹ Ronald M. Powell is a retired career U.S. Government scientist. He holds a Ph.D. in Applied Physics from Harvard University. During his Government career, he worked for the Executive Office of the President, the National Science Foundation, and the National Institute of Standards and Technology.

New or Worsened Symptoms Reported by 318 Individuals after Exposure to Wireless Utility Meters in the USA¹



¹ Ed Halteman, Ph.D., statistics, Final Results Summary: Wireless Utility Meter Safety Impacts Survey, September 13, 2011, p. 22 (<http://emfsafetynetwork.org/wp-content/uploads/2011/09/Wireless-Utility-Meter-Safety-Impacts-Survey-Results-Final.pdf>). 97 percent of respondents to full survey were in the USA, from 28 states with most in California (78 percent) and New York (16 percent).

Executive Summary by Ed Halteman, Ph.D.

Wireless Utility Meter Safety Impacts

OBJECTIVES

- To investigate reported public health and safety complaints about wireless utility meters.
- To evaluate the impacts on health and safety due to wireless utility meters.
- To determine whether further study is warranted.

METHODS

- Survey was designed by the EMF Safety Network (Network).
- The survey was circulated online through various social media outlets including Network's email list, Facebook, and the California EMF Safety Coalition (a discussion group).
- The survey was also posted on Network's website: www.emfsafetynetwork.org where visitors were invited to take the survey.
- 443 responses were received from 7/13/2011 through 9/2/2011. *(318 of the 443 answered the health questions that formed the basis for the bar chart on symptoms. RMPowell)*
- Network commissioned Survey Design and Analysis (SDA) to provide this report of the survey findings.

RESPONDENT MAKEUP

- 93% are over 40 years old and 43% are over 60 years old.
- 73% are women.
- 78% are from California.
- 68% have Pacific Gas and Electric (PG&E) as their utility provider.
- 49% are EMF Sensitive.
- 41% have had a new wireless meter installed in their home; of these . . .
 - 56% have had it installed for at least six months
 - 89% have electric meters, 53% gas meters and 10% water meters
 - 35% saw an increase in their utility bill
 - 26% have experienced some type of interference
 - 8% experienced burned out appliances or damaged electronics including TV, stereo, computer, refrigerator and other.
- 76% indicated they have wireless utility meters installed in their neighborhood, town or city.
 - 44% near their home
 - 36% in town

TOP HEALTH ISSUES SINCE NEW METERS INSTALLED

- Sleep problems (mentioned by 49%)
- Stress, anxiety and irritability (43%)
- Headaches (40%) *(Intentionally listed at 41% on symptoms bar graph, rounded up from 40.9%. RMPowell)*
- Ringing in the ears (38%)
- Heart problems (26%)

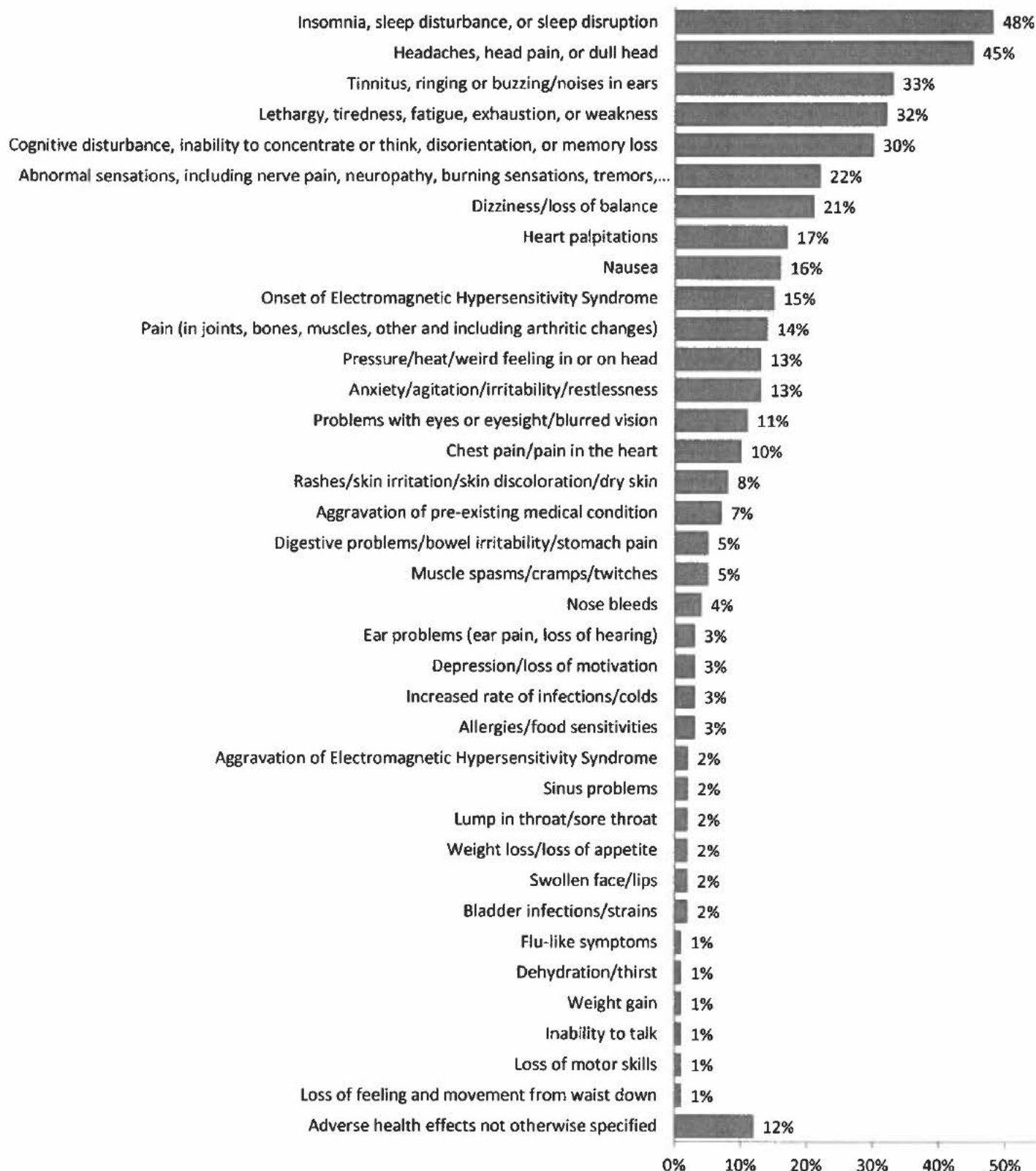
UTILITY and PUBLIC UTILITY COMMISSION INTERACTIONS *(Title inserted by RMPowell.)*

- 40% (111 people) of those having wireless meters in their homes or community have complained to their utility provider.
 - 96% of these people were either "Unsatisfied" or "Very Unsatisfied" with the handling of their complaint.
- 32% (88 people) complained to the utilities commission.
 - 96% of these people were either "Unsatisfied" or "Very Unsatisfied" with the handling of their complaint
- 94% of respondents want to retain or restore their analog meters and 92% of these respondents do not think they should have to pay any additional money.

STATISTICAL TESTING SHOWS THE TOP HEALTH SYMPTOMS ARE POSITIVELY ASSOCIATED WITH

- EMF Sensitivity
- Wireless meters installed in the home

New or Worsened Symptoms Reported by 92 Individuals after Exposure to Wireless Smart Meters in Australia¹



¹ Federica Lamech, MBBS, Self-Reporting of Symptom Development from Exposure to Radiofrequency Fields of Wireless Smart Meters in Victoria, Australia: A Case Series. *Alternative Therapies*, Nov/Dec 2014, Vol. 20, No. 6, pages 28-38. NIH PMID 25478801 (<http://www.alternative-therapies.com> and <http://www.ncbi.nlm.nih.gov/pubmed/25478801>).

Abstract of Dr. Federica Lamech's Article from the National Institutes of Health PubMed Index

* Altern Ther Health Med. 2014 Nov-Dec;20(6):28-39.

Self-reporting of symptom development from exposure to radiofrequency fields of wireless smart meters in Victoria, Australia: a case series.

Lamech F.

Abstract

CONTEXT:

In 2006, the government in the state of Victoria, Australia, mandated the rollout of smart meters in Victoria, which effectively removed a whole population's ability to avoid exposure to human-made high-frequency nonionizing radiation. This issue appears to constitute an unprecedented public health challenge for Victoria. By August 2013, 142 people had reported adverse health effects from wireless smart meters by submitting information on an Australian public Web site using its health and legal registers.

OBJECTIVE:

The study evaluated the information in the registers to determine the types of symptoms that Victorian residents were developing from exposure to wireless smart meters.

DESIGN:

In this case series, the registers' managers eliminated those cases that did not clearly identify the people providing information by name, surname, postal address, and/or e-mail to make sure that they were genuine registrants. Then they obtained consent from participants to have their deidentified data used to compile the data for the case series. The author later removed any individual from outside of Victoria.

PARTICIPANTS:

The study included 92 residents of Victoria, Australia.

OUTCOME MEASURES:

The author used her medical experience and judgment to group symptoms into clinically relevant clusters (eg, pain in the head was grouped with headache, tinnitus was grouped with ringing in the ears). The author stayed quite close to the wording used in the original entries. She then calculated total numbers and percentages for each symptom cluster. Percentages were rounded to the nearest whole number.

RESULTS:

The most frequently reported symptoms from exposure to smart meters were (1) insomnia, (2) headaches, (3) tinnitus, (4) fatigue, (5) cognitive disturbances, (6) dysesthesias (abnormal sensation), and (7) dizziness. The effects of these symptoms on people's lives were significant.

CONCLUSIONS:

Review of some key studies, both recent and old (1971), reveals that the participants' symptoms were the same as those reported by people exposed to radiofrequency fields emitted by devices other than smart meters. Interestingly, the vast majority of Victorian cases did not state that they had been sufferers of electromagnetic hypersensitivity syndrome (EHS) prior to exposure to the wireless meters, which points to the possibility that smart meters may have unique characteristics that lower people's threshold for symptom development.

PMID: 25478801