

Pennsylvanians For Safe Technology
Testimony for FDA Docket No. FDA-2021-P-1347
(Revised 12/31/23)

The purpose of this comment is to strongly request that the FDA to issue immediately an “Imminent Hazard” declaration.

Pennsylvanians for Safe Technology (“PA Safe Tech”) is a non-profit grassroots organization providing education and advocacy to promote the use of more responsible and safer wired technology PA Act 129 mandated wireless utility meters across the Commonwealth of Pennsylvania. Exposure to radiofrequency radiation (RFR) via microwaves (MW) and other electromagnetic fields (EMFs) conducted on powerlines both produced by these meters have had an adverse health impact on Pennsylvania residents.

How is this possible? Smart meters produce two forms of electromagnetic pollution. The first is RF MW radiation (RF MWR) produced by the meter to communicate with the parent company. Instead of producing a signal once a month to report usage data, these devices produce nearly constant radiation emissions to keep the utility apprised of a consumer's real time usage and to communicate with the mesh. The second form of radiation occurs from the production of high frequency voltage transients, which occur on electrical wiring from the meter. These transients travel through the home wiring and emit radiation with a lower frequency than RF, typically in the kilohertz frequency band, a frequency range that causes deeper penetration of radiation into the body's tissues and a resulting higher incidence of health effects.

PA Safe Tech has seen cases of severe acute injury following the installation of smart meters. Also, significant numbers of people develop mild to moderate health effects when exposed to this RF MWR, and powerline conducted emissions. Smart meters are not the only cause of injury; people report exposure to smart meters as a trigger for developing initial symptoms that can progress to very severe disability. These people experience a condition known as electromagnetic hypersensitivity syndrome (EHS), also known as electromagnetic sensitivity (EMS), which is a disability recognized by the US Access Board, Social Security and the Americans with Disabilities Act and Amendments. Ongoing exposure can lead to a cumulative effect; therefore, it is expected that the less severe cases today will worsen over time limiting at least one major life activity. According to a research and literature review performed in 2019 by an independent sociologist in the UK, exposure to RFR is associated with <1.5% of the population being severely affected by EHS, 1.5% to 5% have moderate EHS, and 5% to 30% have mild EHS (Bevington, 2019). Most people, particularly those with mild EHS, are unaware that their symptoms are the result of RFR exposure. In the Commonwealth of Pennsylvania, this would translate to 129,000 people with severe EHS, 388,000 people with moderate EHS, and 3,800,000 individuals with mild symptoms.

PA Safe Tech has observed some Pennsylvania residents with cases of EHS that are so severe that it has compromised access to housing, work, medical care, and other essential services. Today, participation in society is generally possible with ADA Accommodations for people with disabilities. However, the profoundly disabling nature of disability has led to an unprecedented difficulty in obtaining these accommodations. Pennsylvanians so disabled cannot find affordable

housing that is not irradiated by RF EMR anywhere in the state. Individuals who have more discretionary financial resources, on the other hand, must spend their money on expensive custom-engineered electrical filters and shielding. Although treatments have been proposed, clinicians who study this condition emphasize reducing exposure as the only effective means of bringing back one's health.

Despite this, impacted individuals often remain in their home because there is no safer alternative. Staying in one's home without becoming further disabled requires remediation of electromagnetic fields, including those entering from outside the home. Remediation can be costly and beyond the means of most people, typically costing tens of thousands of dollars.

PA Safe Tech wants to underscore that people living with this disability are likely to have great difficulty submitting comments on this docket. After the onset of EHS, many are no longer able to use a computer, while others may not even be able to enter a room with a computer. We have listened to people who have experienced significant losses that are painful to recount. Families of those affected, the public, and agency employees are unlikely to have learned about this condition and may have little compassion. Hiring helpers to respond to your agency is out of the question for extremely ill individuals who are low-income.

There have been two 4-day medical conferences for physicians on the adverse health effects including EHS caused by RFR and conducted emissions (sometimes referred to as 'dirty electricity') and MWR. The second course was offered for licensure credit. These conferences were hosted by the Electromagnetic Safety Alliance, a 501(c)3 non-profit whose mission is education and advocacy on the human health and environmental impacts of electromagnetic fields. An all-volunteer physician-led non-profit, Physicians for Safe Technology, provides free, easily accessible online professional resources on their website, www.mdsafetech.org.

There is a clinical practice guideline (Belyaev I. 2016) and other helpful resources (Eberle 2014, Genus & Slipp 2012, and Belpomme 2015.) More recently, a medical textbook called *Electromagnetic Fields of Wireless Communications: Biological and Health Effects* was written to educate the medical community (Panagopoulos 2022). There is an enormous volume of peer-reviewed research in the scientific literature showing the injurious nature of this radiation, yet US regulators and the FCC have ignored this growing body of supporting evidence including a 27 volume, 11,000-page evidence record of *Environmental Trust et al v FCC*. A US Court of Appeals ruled in August of 2021 that the FCC could not provide evidence for the current FCC guideline that many rely on for safety, and the FCC failed to answer questions about extended exposure, and harm to vulnerable populations. Most of the public is unaware that these health effects even exist. Information found on the internet is mixed with sensationalism, outdated information, and industry biased propaganda, and does not clearly reflect the current state of the science. Government entities such as the US Access Board, Social Security, the National Council on Disability, and others do not know that EHS is a condition covered by the Americans with Disabilities Act.

EHS and EMS are the terms used for this condition in the medical and disability literature as well as in the law. Many professionals who work with people disabled by this condition, as well as people who are disabled by it find these terms inadequate. Most people with disabilities in our

modern world can obtain the necessary support and accommodations granted by federal and state law to access housing, transportation, medical care, and other services not only necessary to survive, but to participate in society. For example, adapted seating, ramps for wheelchairs and other assistive devices, bathroom grab bars, hospital beds and other accommodations provide the means necessary for people with disabilities to access housing, essential services, public buildings to participate in community life. People disabled by EHS/EMS do not. This has led some professionals as well as people disabled by this condition to refer to it as idiopathic environmental intolerance to electromagnetic fields (IEI-EMF) because their experience has been that this is a more profoundly disabling condition than the term ‘sensitivity’ implies. The disability is so profound that in 2015 a researcher described the population having it as “a population deprived of home, work, and basic rights” (Stein 2015). For the purposes of this paper, we will henceforth refer to this condition as EMS, the term first used in the Americans with Disabilities Act.

Pennsylvanians with this disability face the additional barrier of the discriminatory utility practice of forced installation of wireless utility meters. This no-exceptions policy remains in place, even in the most severe cases where there is physician documentation that the meters cause, severely exacerbate disability or even threaten the life of the person.

Following, are 10 of the many cases we have encountered that illustrate the impact RF MWR exposure from utility and telecommunications industries have had on Pennsylvanians.

Typical symptoms of EMS involve different body systems and initially include difficulty sleeping, insomnia, night sweats, general malaise, fatigue, blurred vision, and nausea. Other common symptoms in other major body systems include musculoskeletal symptoms (restless legs, weakness, muscle pain), neurological (headache, tinnitus, paresthesias, dizziness, thought processing difficulties, memory impairment) and cardiac (chest pain/discomfort, palpitations, arrhythmias).

Case One

Liza Mousious is a 70-year-old composer, lyricist and playwright with severe chronic kidney infections who has spent the past four and a half years in substandard housing due to serious medical problems that began on the day a wireless utility meter was installed on her neighbor’s home in Revere, PA. Though she had never previously suffered from severe headaches or stomach, heart, lung, or joint and muscle problems, she suddenly developed insomnia, severe headaches, ear ringing and pain, muscle and joint pain, and nausea, vomiting including hematemesis (vomiting blood), the day the smart meter was installed on her neighbor’s home. These are typical symptoms described in patients with EMS. Two of her dogs died unexpectedly soon after the meter was installed. Liza could not sleep in her house, so she started to sleep in her car and later a tent. A minister allowed her to work at a church that did not have WIFI or a wireless utility meter because she could not sit in her own home and compose at the piano due to her severe reaction to the wireless utility meter.

In November of 2019 it became too cold to remain in the tent. Liza found a house that did not have a smart meter. She lived there until December 2021, even though the house did not have potable water and consistent heat. The symptoms that had started when the smart meter was

installed, stopped. Liza then moved into another house without a smart meter that had usable water. After the furnace in that house broke last year, she endured a winter without heat. The landlord was cited by the Department of Public Health but refused to fix the heater. Liza could not find affordable housing anywhere that did not have a smart meter, so she was forced back into a tent behind her house. Her severe EMS symptoms including headaches, ear ringing and pain, muscle and joint pain returned, along with the nausea, and vomiting, and hematemesis (vomiting blood). After a few weeks, she developed hematuria (blood in her urine). No one has been able to help Liza because Pennsylvania mandates wireless utility meters. Numerous agencies have been asked for assistance including emergency housing, the Area Agency on Aging, Center for Independent Living, PA Disability Rights, Legal Aid and the Senior Law Center, and others. This tragedy could have been averted simply by replacing the wireless utility meter on the neighbor's home with an analog one.

Just prior to Thanksgiving, Liza, struggling with her current situation from the wireless utility meter on her neighbor's house, learned that her electric company lifted the stay on her PUC Complaint and plans to install a smart meter on her house and the house on the other side of her house expected no later than January 2024. She will have a smart meter on both sides of her home and will be unable to even live in the tent. She has little money left after the unexpected living costs incurred over the past four years and a near complete loss of her income leaving her impoverished and sick, with nowhere to go in Pennsylvania (or anywhere) and little money for rent or to move to another state, far from her family and friends. Liza needs an urgent intervention permitting permanent analog utility meter installation on her home and the adjacent abutting homes for health and disability reasons. The FDA has the jurisdiction to mandate this as they are not pre-empted from doing so.

Liza has medical documentation of the need for accommodation and that these problems caused by the smart meter are both disabling and life threatening. Her primary care doctor and another physician, a board-certified psychiatrist, who is a subject matter expert in EMS have provided this documentation. Despite this documentation and numerous requests for accommodation of her disability under Americans with Disabilities Act, Liza remains in her tent and has not been provided her requested ADA accommodation of an analog meter on her neighbor's home. Rather than being accommodated she is instead being again, just before the holidays, forced through arduous PUC Administrative Law proceedings to defend herself from having two additional meters that will harm her, one on her house and another on her closest neighbor's home.

Case Two

Dorene, a 62-year-old woman who recently moved back to northeast Pennsylvania to be in her family home. She lived for many years in a community in Snowflake Arizona in one of 4 rentals for individuals who have chemical, electric, and mobility disabilities. She has osteoporosis with chronic fractures, impaired mobility, syncope as well as chemical and electromagnetic sensitivity that are well documented. When she leaves her house for necessary appointments and is exposed to RF MWR, she develops intractable head and ear pain, severe tinnitus, eye pressure, joint pain, vertigo, severe fatigue, and has difficulty walking or becomes unable to walk. She requires numerous accommodations for her disabilities, and she is now confined to her home here in PA with a part-time aide. Although her condition otherwise warrants skilled nursing care, Dorene cannot move to a nursing facility because she would likely become more disabled there, given

her severe reactions to many electrical and chemical exposures. Her home does not have a smart meter, but she too was recently notified by her utility and the PUC that she is about to receive a smart meter or will be forced to live without electricity. Adding insult to injury Dorene just found out that she will be losing her traditional copper landline telephone. She is unable to tolerate most electrical appliances and cannot use voice over internet that her company offers, leaving her with no means of contacting help in an emergency.

It is certainly a cruel irony that a public entity tasked with ensuring public safety should be forcing severely disabled, poor elderly women such as Liza and Doreen to accept the installation of devices on their homes that will further exacerbate their disability, constructively evict them especially during the cold winter months and during the holiday and prevent them from obtaining help in an emergency. Many of these people do not have family and by nature of their disability they cannot live in wireless outfitted multi-unit dwellings.

Case Three

Liz, 68, is another severely disabled woman in Eastern Pennsylvania with a well-documented case of severe disability related to chemical and electromagnetic field (EMF) exposures. She tried everything including seeking treatment at the Center for Environmental Medicine in Dallas Texas. She requires special housing, free of chemicals and wireless devices. She and her husband were the owners of a very successful business but lost it and have spent nearly all their funds to try and manage this disability. She too still has her analog meter but is being threatened by the power company with a shut off of their electricity if she does not accept a smart meter. Verizon recently removed Liz's landline because she was unable use the new internet connected phone service they are offering. She has a cell phone she uses for emergency purposes and now must use it for all calls, which is exacerbating her disability.

Most of the cases we encounter are women, usually middle-aged or elderly; however, there are men and younger people who develop this condition.

Case Four

Jeff, 68, a paralegal, is also affected. He developed severe headaches, insomnia, tinnitus, and microwave hearing (Frey Effect), after cell towers were installed in his area about 15 years ago. His symptoms worsened when the neighbors' smart meters were installed. He wishes to work part time. His severe headaches, and other symptoms, however, prevent him from doing so. He has a pending PUC case and still has his analog meter. He is very ill and being threatened with a power shut off if he does not accept the installation of a smart meter on his home.

Case Five

Donna, a Lancaster woman, understands what it is like to live without electricity; she has been doing so now for nearly the past four years. She became severely disabled after living near a bank of smart meters installed on her San Francisco apartment building in 2012. Unable to continue living in her apartment, Donna moved back to Lancaster and fully recovered while living for six years without a smart meter. She ran a successful business during this time, until wireless utility meters were installed on the homes near her. Pennsylvania Power and Light Company refused to provide her with electricity unless she accepted the installation of a smart meter. She is once again disabled and living in a house without electricity.

Cases Six and Seven

Grace, 75, was so sick from her smart meter that she wished her adult children would allow her to live without electricity. Her daughter, Leann contacted us in 2019 because her parents were so sick after receiving what they believed was a collector meter. This is a type of smart meter that is designed to collect data from other meters. Her parents both developed severe symptoms after a large smart meter, was installed on a pole on their farm, near their house a few years earlier, replacing a previous digital meter. Their symptoms included ringing in the ears, headaches, nosebleeds, extreme fatigue including muscular fatigue, numbness in the hands and feet, forgetfulness, insomnia, shortness of breath, high blood pressure, terrible joint pains, bladder burning without an infection, and back pain especially on the lower right side. Grace's symptoms were so severe she experienced weight loss. She woke up at night with heart palpitations, night sweats, dizzy, stomach pain, burning sensation all over her body. Shortly after the second, larger smart meter was installed, both developed accelerated of cataracts in both eyes requiring surgery. The doctor was surprised because he did not expect them to need surgery so quickly. Leonard also developed rapidly advancing dementia. He was admitted to the hospital found to have widespread cancer on October 4 and died on October 6, 2019. He sat on a swing every day that was 10 ft from the collector meter. Their dog cried and was restless and had bouts of diarrhea which usually occurred when Grace woke up with heart palpitations covered in sweat. A second dog developed similar symptoms and died.

Grace asked the utility to remove the collector meter. The utility refused to remove the collector meter or even install a "regular" smart meter. Later, the utility told their daughter Leann that the meter was not a collector meter but that the large base was to power the meter for their farm. Grace purchased remediation equipment including an electrical filter, smart meter cover and other remediation equipment and is now able to tolerate being in the house. Her dog also improved after these remediations.

Cases Eight and Nine

Leann, age 43 never had any symptoms of EMS until she was forced to have a smart meter in October of 2018. She immediately started having heart palpitations, nose bleeds, severe headaches, and insomnia. She awakened every morning between 3 and 4 am, covered in sweat with heart palpitations. These symptoms continued until she and her husband spent \$6000 mitigating the problem and her symptoms were reduced in severity to the extent that she can function. She still gets severe headaches when near people using cell phones, especially when in a car or standing near a smart meter.

Her son, Anthony, age 15 has Autism, Sensory Processing Disorder, ADHD, and history of seizures. He was exposed to RF EMR at his school and developed tinnitus/ringing in his ears, head banging and associated vomiting (to relieve pain). He had severe headaches insomnia, and became agitated and aggressive, with an increase in self injurious behaviors. His parents decided to homeschool him and hardwired their internet. These problems improved; however, after being forced to accept a smart meter, all his symptoms came back. They have requested an analog meter but have not been accommodated for his disability.

Case Ten

McKenzie, 29, is a man who has multiple disabling conditions and lives with his elderly parents. He has a potentially fatal seizure disorder that was exacerbated after they returned from vacation and found a smart meter on their house. They decided to move out into the country to a home with an analog meter. His parents discovered that McKenzie's seizures are triggered by exposure to electromagnetic radiation. His case was described in a Supreme Court ADA Brief in Povacz et al. His family is now being threatened with a power shut off if they do not accept the installation of a smart meter on their home. They cannot afford to move a threatened smart meter to the road, or make other costly remediations, or to go off grid to protect their son.

There are many others who have been long time Pennsylvanians as well as others who have been injured into disability. New York residents, especially those living in Manhattan, have moved to the rural northern areas of Pennsylvania expecting relief from living near cell towers. These people instead find out how difficult it is to live in a state without a wireless utility meter opt out.

Many others have very similar stories with similar disabling health problems. The disabilities resulting from these state-mandated smart meters are consistent with the Lamech study and the relevant disability literature, especially that described by Gibson, Stein, and Russell. Pennsylvania now has increased the numbers of this disabled population deprived of home, work, and basic rights so aptly described by Stein.

Homelessness is currently a grave problem, with limited space in shelters for anyone. It is difficult to comprehend the logic of forcing a billing apparatus on people when it deprives them of "home, work and basic rights."

The Pennsylvania utilities, enabled by the Pennsylvania Public Utilities Commission (PPUC), have shown no mercy in the cases described above or the other cases we are aware of. This discriminates against Pennsylvania residents who are disabled and require an accommodation under the ADA. Further, to PA Safe Tech's knowledge, Pennsylvania may be the only state denying its residents the ability to opt out of wireless meter installations. Utilities are allowed to proceed with installations or power shut offs even in cases where the installation of a smart meter is against the medical advice of the customer's physician. It appears to be at odds with the practice of medicine to allow public utilities to overrule medical doctors.

The PPUC must be mandated to revoke such policy that is not only discriminatory to those disabled by EMS, but legally inconsistent with the Americans with Disabilities Act and Amendments, a federal law which supersedes the PPUC state regulatory law. Deference here cannot be an all or nothing matter eviscerating PPUC regulations as was argued in prior PPUC litigation. However, customers disabled by EMS must retain their rights to make a request for reasonable accommodation based on cost under the 4 corners of the ADA law and must be accommodated. The Povacz and other PUC cases in the Commonwealth and PA Supreme Court discussed accommodations for health effects not disabilities.

The PPUC should reverse themselves voluntarily in admission of this occluded error in the interpretation of ADA statutes and execute the duties entrusted to them to protect the public from any such health hazard that may be lethal to any of its electric utility consumers. The FDA is being asked here to provide clarity and guidance on this matter interacting jointly with the PA

Board of Health to ensure that the safeguards needed are put in place with emergency rule making as soon as possible. This guidance should cite that ADA disability laws shall not be preempted by state utilities, PPUC, and they must consider any reasonable ADA accommodations requests submitted. Further, there is the matter of lethality that may result to a federally protected class of individuals with EMS either immediately or over time. PPUC public policy must be non-discriminatory against people disabled by EMS and should be revised accordingly. That access accommodation, which is very inexpensive or under \$100, shall be granted for an analog opt-out utility meter if the customer is disabled by EMS. This is urgently needed, especially considering the timeframe of the meter swap-out occurring during the holidays and the coldest months of the year where Code Blue weather warnings occur regularly. People disabled by EMS are unable to stay in homeless shelters because they all have smart meters, WIFI and people using various personal wireless devices, making this an urgent matter.

The experience of Pennsylvanians disabled by state mandated smart meters, often against medical advice, shows clearly the outcomes produced when the convenience of utility companies overrides the Americans with Disabilities Act and Amendments, and physicians' public health hazard diagnoses that show that these meters are disabling and even life-threatening. Our federal agencies, such as the FDA, FCC, and DOJ, must protect the public from this injurious microwave radiation that so profoundly disables Americans. These analog utility meter safeguards requested for Liza and Doreen and the other Pennsylvanians mentioned require immediate implementation by the issue of Emergency Orders from the Agency that become effective upon its publication or no later than the end of 2023.

In light of the above evidence attesting to the damage caused by RF EMR emanating from smart electric meters we strongly request the FDA immediately issue an "Imminent Hazard" declaration.

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