



The Hazards of Digital Utility Meters

**Why We Must Take Immediate Action to Protect
the Health, Safety and Privacy of Utility Consumers**

Introduction

There is no utility consumer protection in New York State. This failure allows utility companies to remove safe, non-electronic, mechanical analog meters and replace them with unsafe, digital meters without customers' consent. Where these meters have been installed, complaints have been reported to utilities, elected officials and government agencies. Utility companies are willfully ignoring numerous requests for analog meters, while digital meters expose us all to intolerable risks. The New York State Public Service Commission (NYSPSC) is complicit in this misconduct.

Digital utility meters are also known as one-way transmitting AMR and ERT meters or two-way transmitting AMI and Smart meters. There is also a problematic "non-transmitting" digital meter that some utilities offer as an "opt-out."

The New York State Public Service Commission (NYSPSC) approved digital utility meters for use in the early 2000s without testing the meters for health and electrical fire safety, or considering how the meters violate utility consumers' privacy rights. The approval was based on ignorance and misleading information provided by the utility industry and the Federal Communications Commission (FCC). This decision is now adversely affecting millions of people.

What Is Wrong with Digital Utility Meters?

HEALTH – Contrary to false statements by utility companies, digital meters transmit and conduct dangerous levels of non-stop pulsed radiofrequency/microwave (RF/MW) and/or electrical radiation. RF/MW radiation is a Class 2B carcinogen and is known to cause harm to biological life. This exposure is making some people very ill. Illnesses reported include heart ailments and palpitations, tinnitus, dizziness, inflammation, intestinal ailments, headaches, skin rashes, high blood pressure, eye problems, strokes, severe insomnia, cancer and more.

Analog utility meters do not transmit or conduct RF/MW radiation.

In a recent \$30 million study, the National Toxicology Program, an arm of the National Institutes of Health, concluded that RF/MW radiation causes adverse health effects, including DNA damage and cancer. This study was repeated with the same results in Italy at the Ramazzini Institute.

Most utility companies in New York State refuse to accommodate customer requests for safe analog meters. For this reason, there are residents who have chosen to live without electricity rather than continue to be sickened by the radiation exposure to digital utility meters. Some New Yorkers have taken it upon themselves to remove digital meters and replace them with analog meters. They are doing this despite utility company threats to cut services. In one case, Fortis/Central Hudson literally cut the service lines to a home where, for health reasons, the resident removed a recently installed digital meter and replaced it with a safe analog meter. The new digital meter had been placed outside the wall of a bedroom just at the head of the bed where the resident slept. Soon after the digital meter was installed, the resident had a stroke. ([Source A](#). See links on page 9 for information about digital meter health risks.)

SAFETY – In addition to health risks, digital meters cause fires, explosions and equipment failures.

Utilities and government agencies overlooked evaluating the dangers of retrofitting complicated transmitting digital meters into electrical systems that are designed to work with non-electronic mechanical analog meters. Digital meters are not compatible with existing consumer electrical systems because they lack circuit breakers and surge arrestors. Analog meters are equipped with substantial surge arrestors and they do not need circuit breakers because they contain no electronic components. Power surges can cause fires, explosions and equipment failures at buildings where digital meters have been installed.

Digital meters are not Underwriters Laboratory (UL) safety approved. Perhaps the utility industry knew about the many electrical problems associated with these meters and, as a result, never obtained UL approval for them. It is generally accepted that all electronic devices should be UL approved. In fact, utility companies' own safety pamphlets strongly recommend using only UL approved electronic devices. Why has the NYSPSC allowed utilities to install dangerous meters that are not UL approved?

Thousands of digital meters have been recalled for various failures, at consumer expense, through the expenditure of tax dollars and raised utility rates. These failures include over-billing, faulty operation, unreliable signals, overheating, melting circuit boards, fires and explosions. ([Source B](#). See links on page 9 for information about UL safety recommendations, fires and “smart” meter recalls.)

PRIVACY – Digital meters invade utility consumers' privacy. They allow utility companies to extract private consumer usage data without permission and sell that data for a profit. We pay utilities to deliver electricity, water and gas. We have not given them the right to invade our privacy and sell our information to third parties.

Security experts warn that digital meters pose a major cyber-security threat because they can be electronically hacked. In its rush for more profits, the utility industry failed to calculate the vulnerability of wireless meter networks to terrorist attacks that could shut down essential parts of local and national utility operations. ([Source C](#). See links on page 10 for information about smart meter privacy breaches and cyber-security risks.)

Utilities Spread Misinformation About Utility Meters

When corporations spread misinformation about their products, it is important to learn the facts and expose the truth. Utility providers make the following false claims about digital meters:

1. The utility industry claims digital meters are safe and have been tested for health and safety.

FACT: The industry bases its digital meter health and safety claims on flawed FCC testing that was conducted only after the meter was altered to fit a test modality that was not designed for testing utility meters. This test also failed to include consumer and utility electrical wiring and the unpredictable variables found within actual electrical systems. In the only test that the FCC conducted, the digital meter was not connected to, nor did it interact with, realistic conditions found within electrical systems, electronic and wireless equipment, building materials and biological systems. These are the circumstances that determine if

there will be electrical problems, electronic equipment failures, fires and/or adverse health effects after digital meters are installed. In any case, the FCC could not test these meters for health and safety because the FCC is not a health or safety agency.

In response to these failures, in 2013, Stop Smart Meters NY, located in Hastings on Hudson, New York, hired Isotope, an expert RF/MW engineering firm, to investigate the radiation emissions caused by digital AMR meters that were installed in lower Westchester County. Starting with basic RF/MW detecting equipment, Isotope confirmed that transmitting digital meters emit non-stop pulsed RF/MW radiation.

Using more sophisticated equipment, Isotope also determined that these meters also cause conducted pulsed RF/MW radiation to travel into and contaminate home electrical wiring systems. Transmitting digital meters unleash this radiation through the electric circuit breaker panel, which then transforms an entire electrical wiring system into a massive pulsed RF/MW antenna. Once the conducted pulsed frequencies corrupt the electrical system, they radiate at unpredictable levels and locations within a building. This antenna effect results in an unprecedented and constant whole-body RF/MW radiation exposure.

On page 16 of the Isotope report, a photograph depicts the “FCC Part 15.247” testing of a digital meter. The photograph shows that the FCC laboratory attached a power cord to the bottom of the meter. In actual use however, a utility meter does not employ a power cord. The Isotope report states: “Using a power cord instead of setting up the power wiring the way the device is actually used may not reveal how the house circuit wiring through the meter may act. The actual *in-situ* wiring may be more like an antenna that may pick up unwanted RF energy and noise within the meter and conduct it into the residence.” The Isotope report further explains that, in a proper test, the digital meter would have failed. (Source F. See link on page 10 to the Isotope report.)

In its testing procedure, the FCC also failed to detect unacceptable and harmful levels of conducted high frequency voltage transients, known as “dirty electricity.” Dirty electricity is triggered by electronic components inside digital meters, including the switch mode power supply, and is also generated from the grid. Analog meters are designed to protect consumer electrical wiring from surges on the grid. Analog meters do not contain electronic components and therefore cause no dirty electricity.

Unleashing digital utility meters on an unknowing public, before the meters were tested correctly, has resulted in thousands of reported injuries, fires, explosions and electronic equipment failures. Based on fatally flawed testing that was never intended to assess health and safety, elected officials and government agencies

have allowed the utility industry to force hazardous meters on New York State residents.

In addition, utility workers who drive through neighborhoods collecting RF/MW signals from thousands of transmitting meters are at risk from radiation exposure. This risk is intensified by the electronic and RF/MW meter equipment enclosed inside the utility vehicle. There is no documentation showing that this exposure has ever been tested.

3. Utilities in New York State claim mechanical analog meters are no longer available.

FACT: Utilities across New York State are deliberately propagating the myth that analog meters are no longer available as an excuse to maximize profits from the rollout of digital meters. These companies are systematically removing and destroying working analog meters. However, analog meters are readily available and are in use in many states' including California, Vermont, Maine, New Mexico, Arizona and New Jersey. Many utility companies across the United States provide analog meters for their customers. Supply meets demand. There is a demand for analog meters, and a supply to meet it.

4. Utilities in New York State claim analog meters do not work with solar power arrays.

FACT: In New York State there are functioning analog meters that simply spin backwards when connected to grid-tied solar systems. Some consumers are afraid to install grid-tied solar because their utilities have falsely told them that they will need to have a digital meter. This deception is impeding progress toward increased use of renewable energy sources.

5. Utilities in New York State claim digital meters lower energy costs.

FACT: Since about 2008, when digital meters became widely distributed throughout New York State, utility rates have skyrocketed. There is no evidence that these meters are cost effective. Replacing and destroying reliable analog meters with digital meters yields a cost, not a savings.

Some utility companies are already discarding the first round of expensive and hazardous one-way digital meters and replacing them with untested two-way RF/MW transmitting Smart meters. In addition, two-way meters require extensive and untested wireless infrastructure to be installed throughout our neighborhoods. We are paying dearly for this. The NYSPSC continues to approve rate hikes for digital meters while covering up the problems.

6. Utilities in New York State claim digital meters are similar to and as "safe" as

other electronic appliances and devices in homes.

FACT: There are no other electronic appliances or devices that are forced on consumers for any reason. With all electronic equipment, we have a choice. Digital meters that measure electrical usage cannot be compared to other electronic devices because these meters connect the utility grid to all consumer electrical wiring throughout private property. This is an unprecedented use of an electronic product. There are no other devices that contaminate electrical wiring with transmitted and conducted non-stop, pulsing RF/MW and electrical radiation. Digital meters have a dangerous and unique design that cannot be turned off by the consumer.

7. Utilities in New York State claim that digital meters offer benefits for both consumers and the environment. They say that these meters are necessary to manage energy consumption and integrate renewable energy resources into the power grid.

FACT: In 2009, \$11 billion in Federal stimulus funds were allocated for “green” technology. Utility companies in New York State grabbed many hundreds of millions of dollars from these funds, our tax dollars, for digital meters. They made unsubstantiated claims that this was “green” technology. Yet, in the last ten years, consumers have seen no proof of any environmental benefits from digital meters. In truth, the utility industry was not considering the environment when it began installing digital meters, but instead intended to increase its profits by eliminating jobs for meter readers, raising rates and collecting data to sell to third parties.

Replacing analog meters with digital meters does not save energy. Are millions of energy-intensive pulsing RF/MW meters, installed on every house and building, going to save energy? Is it sustainable to set up an energy-intensive digital meter infrastructure? Will it help climate change to build temperature-controlled buildings to house massive utility data collection centers? Is it benefiting the environment to use excessive amounts of energy to steal and sell our private utility usage data? No, all of these undertakings have proven to be a failure. The push by the utility industry to green-wash utility meters is motivated by profit-seeking alone.

8. Utilities in New York State claim that a time-of-use rate system facilitated by digital meters is essential for energy savings.

FACT: Time-of-use rates are another excuse for the utility industry to install digital meters. Time-of-use charges are unjust. For example, it is unfair to impose higher rates for daytime usage when an individual works at night and is only at home during the day. Further, digital meters and time-of-use rates are not

needed in order to level peak demand when proven educational and non-invasive conservation methods are already proven to be successful.

9. Utilities in New York State do not disclose that digital meters collect personal utility usage data.

FACT: Digital meters are designed to extract granular personal utility usage data. Although the NYSPSC has received thousands of complaints related to digital meters, it recently approved more intensive two-way meters, plus the needed infrastructure, allowing for a further reach into our personal lives by the utility industry. Utilities have no right to obtain or sell customers' personal data, and the NYSPSC has no right to approve this action. This is electronic trespassing.

10. Some utilities in New York State are charging fees for a digital "non-transmitting" opt-out meter, which is leading customers to believe that they are safe.

FACT: No digital utility meters, including the so-called "opt-out" meters, have ever been tested for health and safety. Both transmitting and non-transmitting digital meters cause dirty electricity to conduct into buildings on electrical wiring and are an electrical hazard. Many health complaints have been reported after the installation of both transmitting and non-transmitting digital meters. In the many decades which analog meters have been used, there have been no such complaints. Forcing consumers to have digital meters, whether transmitting or not, is a violation of consumer rights.

Utility companies are charging a fee for some consumers to opt-out. It is nonsensical for utilities to make residents pay costly fees to opt-out of a digital meter, only to have another digital meter imposed on them, especially when safer analog meters are already approved by the NYSPSC. This deceitful utility opt-out offer is designed to confuse the public about utility meters.

Any opt-out is not a long-term solution. Those who do not have digital meters will still be exposed to dangerous radiation from surrounding transmitting meters and looming infrastructure. How do people who live in apartments opt-out when others around them have digital meters? How do families who live above or next to hundreds of electric, water and gas meters opt-out if they want to protect themselves? How do individuals who live on the other side of a bank of digital meters opt-out from transmitted RF/MW radiation coming through their walls? How do parents protect a baby who is sleeping on the other side of a bank of digital meters? How do building superintendents living in basement apartments next to rooms full of digital meters protect themselves? No one can opt-out of conducted pulsed RF/MW radiation or dirty electricity.

The justification for the utility industry's removal of analog meters and the roll-out of digital meters is based on deceit.

Until There Is an Investigation, Utility Companies Must Offer Analog Meters to Their Customers Because:

- Analog meters have been used safely for decades, while digital meters have been used for less than a decade with many thousands of reported complaints.
- Analog meters protect the privacy of utility consumers while digital meters harvest private utility usage data.
- Analog meters do not cause fires. Digital meters cause fires, explosions and equipment failures.
- Analog meters protect a consumer's electrical system from electrical irregularities from the grid. They do not cause "dirty electricity" or microwave radiation to conduct onto electrical wiring the way that digital meters do.
- Both the utility industry and government regulators, including the NYSPSC, falsely claim that digital meters are safe, yet they have never tested these meters for RF/MW radiation emissions or electrical fire safety.

Elected Officials Support an Analog Meter Choice

In response to escalating complaints about digital meters, elected officials and municipalities have written letters to the NYSPSC and passed resolutions supporting the rights of New York State utility customers to retain or recover analog meters. It is a disgrace that this has been disregarded by the NYSPSC for over a decade.

Corruption Needs to Be Investigated

An investigation will show that digital meters yield no consumer benefits. Utility companies are so eager to extract their customers' personal information that they have spent the last eleven years, and billions of dollars, prioritizing the use of dangerous utility meters instead of delivering safe electricity (water and gas) and hardening the grid against severe weather. Consumers are paying for this sham.

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SOURCES:

A. HEALTH RISKS

Cell Phone Radiation Leads to Cancer, Says US NTP in Final Report

<https://microwavenews.com/news-center/ntp-final-rf-report>

Microwave News: Italian Study "Reinforces" US Findings

<https://microwavenews.com/news-center/ramazzinis-belpoggi-interview>

Dr. Ronald Powell: Symptoms After Exposure To Smart Meter Radiation

http://stopsmartmetersny.org/images/Symptoms_after_Exposure_to_Smart_Meter_Radiation.pdf

American Academy of Environmental Medicine Opposes the Installation of "Smart" Meters

<http://stopsmartmetersny.org/images/AAEMSMCS.pdf>

Video: Dr. Dietrich Klinghardt: "Smart" Meters & EMR: The Crisis of Our Time

<https://www.youtube.com/watch?v=PktaaxPI7RI>

Video: 200 International scientists sign an appeal to the United Nations to protect human health and wildlife from electromagnetic fields and wireless technology

<https://vimeo.com/129194410>

NACST: 10 Myths - We Need the Facts

<http://www.nacst.org/10-myths.html>

Video: MSMA: Woman Suffers Acute Radiation Exposure from "Smart" Meters

<https://www.youtube.com/watch?v=F9QZuWPw6Y0>

B. SAFETY RISKS

More Tips from Con Edison for UL Approved Electronics

<http://www.coned.com/customercentral/electricsafety.asp>

Smart Meters on Fire in Stockton, California

<https://sacramento.cbslocal.com/2015/03/30/stockton-smart-meters-explode-after-truck-causes-power-surge/>

EMF Safety Network: Smart Meter Fires and Explosions

<http://emfsafetynetwork.org/smart-meters/smart-meter-fires-and-explosions/>

Stop Smart Meters: "Smart" Meter Fire News Round Up

<http://stopsmartmeters.org/2012/09/08/news-round-up-smart-meter-fires-open-up-a-difficult-smart-grid-story-ieee-puts-industry-on-notice/>

Smart Grid Awareness: Domino Effect "Smart" Meter Fires

<http://smartgridawareness.org/2014/08/27/domino-effect-of-more-smart-meters-being-replaced-due-to-fires/>

"Smart" meter recalls:

Article: 2016-Hydro One pulls plug on wonky smart meters in rural areas

<http://ottawacitizen.com/opinion/columnists/egan-hydro-one-pulls-plug-on-rural-smart-meter-signals>

Article: More Smart Meters Removed Due to Fire Hazard

<http://incompliancemag.com/thousands-more-smart-meters-removed-due-to-fire-hazard/>

C. PRIVACY RISKS

"Smart" meter privacy breaches:

Smart Meter Awareness: "Smart" Meters Generate a "Gold Mine of Data" for Utilities

<http://smartgridawareness.org/2015/12/31/smart-meters-generate-gold-mine-of-data/#more-13704>

Cyber-security risks:

Smart Grid Awareness: Puppet Attack: Newly Discovered Cyber Threat for Smart Meters

<http://smartgridawareness.org/2016/01/13/puppet-attack-new-cyber-threat-for-smart-meters/#more-13816>

Video: CIA Director Calls Smart Grid Really Stupid - Security - Smart Meters

<https://www.youtube.com/watch?v=rIFD1sUTGX8&list=PLD83D71F37917E809&index=4>

D. ISOTROPE REPORT

Isotope: Report on Examination of Selected Sources of Electromagnetic Fields at Selected Residences in Hastings on Hudson

<https://static1.squarespace.com/static/5a9ede31f2e6b10db4aaa0d8/t/5ae782b003ce643d71528e0b/1525121712611/Isotope+Report.pdf>