

AN OVERVIEW OF SMART METER HAZARDS

**Why We Must Take Immediate Action to Protect
the Health, Safety and Privacy of All New Yorkers**

Introduction

New York State recently embarked on an ambitious initiative to examine and reform its energy vision. For this to be successful, New York State must first enact utility consumer protective legislation that includes an end to the forced installation of digital electronic “smart” meters. Common names include AMR, ERT, AMI, Power Line Carrier (PLC), Non-transmitting digital “opt-out” meter and more.

The New York State Public Service Commission (NYSPSC) approved “smart” meters for use in the early 2000s. The approval was based on ignorance and misleading information from the utility industry. This decision is now adversely affecting millions of people.

By early 2007-08, utilities began to replace functioning mechanical analog meters with “smart” meters. By 2009-10, “smart” meter health complaints were reported to utilities, elected officials and government agencies. Today, utilities in New York State continue to force unsafe, privacy invading and expensive meters on residents, while disregarding thousands of reported “smart” meter complaints. New York State elected officials and the NYSPSC are complicit in this misconduct.

Utility corporations wield excessive influence over government agencies and elected officials. This unbalanced power structure restricts our energy choices and must be reined in before New York State can be truly dedicated to fostering an independent, sustainable and safe energy future.

What is Wrong With Smart Meters?

HEALTH – “Smart” meters are energy-intensive digital electronic devices that collect, record and transmit private utility usage data. These meters emit dangerous non-stop pulsed microwave and/or electrical radiation. This exposure is making some people very ill. Symptoms include insomnia, heart palpitations, heart ailments, tinnitus, anxiety, depression, inflammation, intestinal ailments, headaches, skin rashes, high blood pressure, strokes, cancer, worsening of previous illnesses and more.

Because utility companies in New York State refuse to accommodate customer requests for safe analog meters, there are residents who have chosen to live without electricity rather than continue to be sickened by “smart” meter radiation. Some New Yorkers have taken it upon themselves to remove “smart” meters and replace them with analog meters in spite of utility threats to cut services. (Source A. See links on page 10 for information about “smart” meter health risks.)

SAFETY - In addition to health risks, “smart” meters are causing fires, explosions and equipment failures across the United States and around the world.

Utilities and government agencies overlooked evaluating the dangers of retrofitting a complicated electronic microwave “smart” meter into a socket and electrical system that was designed to work with a mechanical analog meter. Furthermore, “smart” meters lack surge protection, whereas analog meters are built with substantial surge protection. Power surges can cause fires, explosions and equipment failures. It is a fact that people have died in fires caused by “smart” meters.

“Smart” meters are not Underwriters Laboratory (UL) safety approved. Perhaps the utility industry knew about the many electrical problems associated with “smart” 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 electronic devices that are UL approved. Why has the NYSPSC allowed utilities to install electronic-intensive “smart” meters that are not UL approved?

Thousands of “smart” meters have been recalled for various failures, at consumer expense, through tax dollars and raised utility rates. These failures include over-billing, faulty operation, unreliable signals, overheating, melting circuit boards, fires, explosions and other safety concerns. (Source B. See links on page 11 for information about UL safety recommendations, fires, explosions and “smart” meter recalls.)

PRIVACY - Along with posing health, safety and fire risks, “smart” meters invade utility consumers' privacy. “Smart” meters allow utility companies to extract utility consumer private utility usage data without permission. We pay utilities to deliver electricity, water and gas. We have not given them the right to invade our privacy by stealing our personal data.

Security experts warn that “smart” meters are a major cyber-security threat because they can be electronically hacked. In its rush to profit, the utility industry failed to calculate the vulnerability of wireless “smart” meter networks to terrorist attacks that could shut down essential parts of local and national utility operations.

Likewise, the transmission of private utility usage data is vulnerable to hackers who have the ability to determine when residents are not home. This makes individuals susceptible to crime through “smart” meter wireless networks. (Source C. See links on page 11 for information about “smart” meter privacy breaches and cyber-security risks.)

Utilities Spread Misinformation About Smart Meters

When corporations spread misinformation about their products, it is important for government agencies, elected officials, environmental groups and the public to take notice and learn the facts. Utility providers in New York State have made the following false claims about “smart” meters:

1. Since 2010, utility companies in New York State have claimed their meters are not “smart” meters.

FACT: Today, when customers contact utility providers about meter concerns, the companies instruct their employees to deceive the public by insisting that their digital electronic meters are not “smart” meters. This name game must stop. “Smart” is the word the industry chose to sell digital electronic meters. Because so many problems were reported after the installation of “smart” meters, the word “smart” became synonymous with the dangers of this technology. Instead of changing their ill-conceived digital electronic meters, the utilities simply changed the names of the meters to “AMR,” “ERT,” “non-transmitting digital opt-out,” etc. These are all “smart” meters, regardless of the labels with which the utilities attempt to mask them. (Source D. See links on page 12 for proof about utility industry meter name games.)

2. The utility industry claims “smart” meters are safe and have been tested for health and safety.

FACT: The industry bases its “smart” meter health and safety claims on flawed Federal Communication Commission (FCC) testing for electrical interference. In the only test that the FCC conducted, the “smart” 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. This test failed to include unpredictable variables found within buildings. These circumstances determine if there will be electrical problems, electronic equipment failures, fires and/or adverse health affects after “smart” meters are installed. The FCC never tested “smart” meters for health and safety. The FCC is not a health agency.

In 2010, New York State residents reported illnesses after utility companies installed “smart” meters. In response, Stop Smart Meters NY hired Isotrope, an expert engineering firm, to investigate the microwave radiation emissions caused by "smart" meters. Starting with basic microwave detecting equipment, Isotrope confirmed that “smart” meters transmit non-stop pulsed microwave signals.

Using more sophisticated microwave detecting equipment, Isotrope also determined that “smart” meters cause conducted pulsed microwave radiation (CPMR) to travel into and contaminate home electrical wiring systems. A “smart” meter unleashes CPMR through the electric circuit breaker panel, which then transforms an entire electrical wiring system into a massive pulsed microwave antenna. Once CPMR corrupts the electrical system, it radiates at unpredictable levels and locations within a building. This “antenna effect” results in an unprecedented and constant whole body microwave radiation exposure. Microwave radiation is designated by the World Health Organization (WHO) as a Class 2B carcinogen. (Source E. See link on page 12 for facts about WHO 2B carcinogen classification.)

On page 16 of the Isotrope report, a photograph depicts the “FCC Part 15.247” testing of a “smart” meter. The meter was altered to fit the test modality. The photograph shows that the FCC laboratory attached a power cord to the bottom of the meter. A utility meter does not employ a power cord. The Isotrope 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 Isotrope report further explains that, in a proper test, the “smart” meter would have failed. (Source F. See link on page 12 to the Isotrope 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 “smart” meters, including the switch mode power supply. Analog utility meters contain no electronic components and therefore cause no “dirty electricity” or CPMR. Unleashing this technology on an unknowing public before it was tested correctly has resulted in thousands of reported health 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 electronic devices on New York State residents.

In addition, utility workers who drive through neighborhoods collecting microwave signals from thousands of “smart” meters are at risk from radiation exposure. These risks are intensified by the electronic and microwave “smart” meter equipment inside the utility vehicle. This exposure was never tested for health and safety either.

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 in order to maximize profits from the rollout of “smart” meters. These companies are systematically removing and destroying working analog meters. However, analog meters are still readily available. Supply meets demand. If there is a demand for analog meters, there will be a supply. Utility companies and consumers across the United States can easily obtain analog meters.

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 New Yorkers are afraid to install grid-tied solar because their utilities have told them—falsely—that they will need to have a “smart” meter. This deception is impeding progress toward increased use of renewable energy sources.

5. Utilities in New York State claim “smart” meters lower energy costs.

FACT: Since 2007, when “smart” meters became widely distributed throughout New York State, utility rates have skyrocketed. There is no evidence that “smart” meters are cost effective. Replacing and destroying reliable analog meters with “smart” meters yields a cost, not a savings. If the utility industry has its way, the

“smart” meters presently installed in New York State will need to be replaced with even more harmful untested two-way “smart” meters. This will impose further costs to consumers while providing no proven benefits.

6. Utilities in New York State claim “smart” meters are similar to and as “safe” as other electronic appliances and devices in homes.

FACT: With NYSPSC approval, utility companies in New York State force “smart” meters on consumers. There are no other electronic appliances or devices that everyone is required to have. With other electronic equipment, we have a choice.

“Smart” meters cannot be compared to other devices because these meters are attached at the electric circuit breaker panel. Thus, they are connected to all electrical wiring throughout private property. No other device, other than a “smart” meter, is connected to an entire building’s electrical system and contaminates it with transmitted and conducted non-stop, pulsing electrical and microwave radiation that cannot be turned off. “Smart” meters have a dangerous and unique design. No wireless or electronic device can be compared to a “smart” meter.

7. Utilities in New York State claim and have convinced the public, lawmakers and environmentalists, that “smart” meters offer benefits for both consumers and the environment. They say that “smart” meters are necessary to manage energy consumption and integrate renewable energy resources into the power grid, therefore addressing the climate crisis.

FACT: In 2009, \$11 billion in Federal stimulus funds were allocated for “green” technology. Utility companies in New York State grabbed hundreds of millions of these funds, our tax dollars, for “smart” meters they claimed were “green.” This money grab continues today. Yet, in the last eight years, New Yorkers have seen no proof of any environmental benefits from “smart” meters.

The utility industry was not considering the environment when it first began installing “smart” 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 electronic “smart” meters does not save energy. Are millions of pulsing microwave “smart” meters, installed on every house and building in New York State, going to save energy? Is it sustainable to set up an energy-intensive electronic “smart” meter infrastructure? Will it help the climate crisis to build giant 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 are excessive and wasteful. The push by the utility industry to

green-wash “smart” meters is motivated by profit alone. There are no known benefits to consumers or the environment from a “smart” meter infrastructure.

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

FACT: Time-of-use rates are another excuse for the utility industry to install “smart” 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 home during the day. “Smart” meters and time-of-use rates are not needed in order to level peak demand when there are proven educational and non-invasive conservation methods that are successful.

9. Utilities in New York State claim “smart” meters do not collect personal utility usage data.

FACT: “Smart” meters are designed to collect granular personal utility usage data. If a more intensive two-way “smart” meter infrastructure is approved in New York State, personal data will not only continue to be collected, it will also be sold by utilities to third parties, without consumers’ permission. Utilities have no right to obtain or sell customers’ personal utility information. This is electronic trespassing.

10. Some utilities in New York State are charging fees for an electronic “non-transmitting digital opt-out meter,” which is leading customers to believe that these “opt-out” meters are safe.

FACT: All digital electronic utility meters, including the so-called “opt-out,” are technically “smart” meters, therefore unsafe. Both transmitting and non-transmitting digital “smart” meters invade privacy, cause “dirty electricity” to conduct into buildings on electrical wiring, are an electrical hazard and were never tested for health and safety. Many health complaints have been reported after the installation of both transmitting and non-transmitting “smart” meters. Digital electronic meters, whether transmitting or not, are a violation of consumer rights.

It is nonsensical for utilities to make New York State residents pay costly fees to “opt-out” of a “smart” meter, only to have another “smart” 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 the safety of “smart” meters.

An analog “opt-out” may be a good start but it is not a long-term solution. Those who do not have “smart” meters will still be exposed to dangerous radiation from surrounding meters. How do people who live in apartments “opt-out” when everyone else around them has “smart” meters? How do families who live above hundreds of electric, water and gas “smart” meters “opt-out” if they want to protect themselves? How do individuals who live on the other side of a bank of “smart” meters “opt-out” from transmitted microwave radiation coming through their walls? How do parents who know nothing about meters protect a baby who is sleeping on the other side of a bank of “smart” meters? How do building superintendents living in basement apartments next to rooms full of “smart” meters protect themselves? No one can “opt-out” of CPMR or “dirty electricity.” The only safe solution is the complete elimination of “smart” meters and the return of analog meters.

Smart Meters Should Never Have Been Approved in New York

It was a terrible and costly mistake for the NYSPSC to approve the deployment of “smart” meters. There have never been any plausible justifications for using “smart” meters. Analog meters should have been left in place for the following reasons:

- Analog meters have been used safely for decades with no health, fire, electrical or privacy complaints. “Smart” meters have been used for less than a decade with many thousands of reported complaints.
- Analog meters are durable, accurate, cost-effective and have a life span of 20 to 40 years or longer. “Smart” meters are flawed, ill-conceived plastic devices that need to be replaced often.
- Analog meters have proper surge protection. “Smart” meters do not have surge protection.
- Analog meters protect the privacy of utility consumers. “Smart” meters harvest private utility usage data.
- Analog meters are not a safety threat. “Smart” meters cause fires, explosions and equipment failures and are a cyber-security threat.
- Analog meters are well-designed mechanical devices that contain no electronic components or antennas, waste no electricity and do not need batteries. “Smart” meters contain poorly designed electronic components and microwave antennas that waste electricity.

- Analog meters do not cause “dirty electricity” or microwave radiation to conduct onto electrical wiring. “Smart” meters cause unprecedented “dirty electricity” and microwave radiation to conduct onto electrical wiring, thus contaminating entire electrical systems.

Using False Information to Justify Smart Meters

The justification for the utility industry’s entire rollout of “smart” meters is based on erroneous claims. The public is not being protected. How many more complaints about the hazards of “smart” meters do we need before something is done about this? How many more people will have to be injured before elected officials and government agencies take this seriously? Who is responsible for the harm this has caused? These problems must be investigated.

Local Municipalities Address the Dangers of Smart Meters

To date, the Ulster and Dutchess County Legislatures, the Towns of Woodstock and Olive and the City of Kingston have passed resolutions asking the New York State Legislature to investigate the health, safety, privacy, cyber security and financial risks of “smart” meters. They have done this in response to escalating complaints from residents about the risks of “smart” meters. Each of these communities has affirmed the immediate right of utility customers to retain or recover analog meters.

Conclusion

Safe and Sustainable Energy Goals with Analog Meters

New Yorkers have made it clear that they want to conserve energy and address the climate crisis, as evidenced by numerous comments submitted to the NYSPSC. Those who have taken the time to research and educate themselves about “smart” meters have made it clear that we cannot ignore the facts or waste money on this failed technology.

For over seven years, the NYSPSC and elected officials have willfully ignored public concerns and mounting scientific evidence about the dangers of “smart” meters. Since 2009, scientists, doctors, fire prevention experts, privacy and cyber security experts and engineers have warned that “smart” meters expose us all to intolerable risks. It is now time to heed these warnings and focus the powerful collective energy of New Yorkers on public safety and sound energy conservation, rather than surrendering to corporate greed.

Contrary to utility industry claims, “smart” meters were never tested for health, safety, privacy, cyber security, fire hazards or radiation emissions. “Smart” meters have no proven consumer benefits. To protect public health, safety and the environment, New York State residents and elected officials must take immediate action to stop “smart” meters.

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