

Background Information & Comparison of Utility Meters

1. There are two types of utility meters that have been approved by the New York State Public Service Commission (NYSPSC) and used in New York State:

- **Analog Utility Meter** - an electro-mechanical utility meter that accurately measures electric, water and gas usage. Analog meters do not contain or utilize flammable electronic components. Analog meters cannot transmit or conduct radiofrequency (RF) radiation or electromagnetic interference, also known as dirty electricity. Analog meters have no capability to collect private utility usage data. An analog meter, for electric service, acts as a built-in mechanical grounding system, with surge/lightning arrestors that protect a consumer's electric system from fires and damaging power surges from the grid.¹
- **Digital Utility Meter (aka AMR, ERT, AMI, PLC, Smart, non-transmitting digital)** - a computerized electronic utility meter used to collect, measure, store and/or transmit electric, water or gas usage data to the utility. Digital meters present a fire hazard because they contain flammable electronic components, including switch mode power supplies, antennas, and batteries. These components contaminate electrical wiring and the grid with conducted RF radiation and electromagnetic interference ("dirty electricity"). Digital meters, either one-way or two-way, pollute the environment with transmitted pulsed RF radiation for large areas surrounding the meters. Digital meters do not contain surge arrestors or circuit breakers, which are essential for safety. Digital meters are not Underwriter's Laboratories (UL) approved.

2. In the mid-2000s, the NYSPSC approved the deployment of digital utility meters.

In doing so, the NYSPSC relied on testing procedures from the 2003 NYSDPS Operating Manual 92.² These test protocols were specifically designed to test analog utility meters only for *metering accuracy*, not for safety, performance or RF radiation emissions. Had the meters been properly tested for fire risks, electrical interference and emissions, the meters most likely would never have been approved.

3. Once the NYSPSC approved digital meters, utility companies began to remove analog meters from New Yorkers' homes and businesses and replace them with digital meters, in most cases without prior notification or consumer consent.

The goal of the meter replacement project was to save the utilities money by eliminating meter reader jobs, and to extract customers' private utility usage data that the utilities could then sell to third parties. In addition, utilities planned to use digital meters to force time-of-day (peak and off-peak) utility pricing on customers, a practice that discriminates against certain

¹ U.S. Patent No. US3735259A *Overvoltage Surge Arrester for a meter*

² Department of Public Service *16 NYCRR Part 92 Operating Manual - March 14, 2003*

customers who cannot, for legitimate reasons, choose when they use electricity.

4. For over a decade, the NYSPSC has ignored the growing privacy, safety and health concerns about digital meters.

In 2016, the NYSPSC instituted a policy of refusing to post public comments “if they related to health.” This is a fundamental violation of the NYSPSC’s duty of care and its legal obligation to protect and serve the best interests of all New Yorkers. ***There is now no public record*** of how many comments the NYSPSC has received regarding health problems related to digital meters.

5. Since 2011, in response to privacy, safety, and health concerns about digital meters, many utilities across the United States have offered an analog meter choice, but most utilities in New York State do not.

Historically, there was never a reason to offer a utility meter choice. Within a short time after the introduction of digital meters, customers began demanding an analog meter choice because digital meters proved to be unsafe. Across the country, thousands of people had reported fires and health problems caused by digital meters.

6. Analog utility meters have an average life span of 40-50 years, while digital meters need regular repair and maintenance and expensive replacement.

Analog meters have served New Yorkers (and other utility customers worldwide) well for decades and will continue to do so. In contrast, after only 10 years, some utilities are already recalling the first generation of digital meters and replacing them at consumer expense.

Utility costs have skyrocketed in New York State. As an example, in 2009, Con Edison appropriated \$500 million in stimulus funds (federal tax dollars) and spent it on one-way AMR digital meters. Eight years later, they discarded those meters and replaced them with two-way digital meters. This was done at taxpayer and ratepayer expense.

7. Utilities falsely claim that digital utility meters benefit the environment and consumers.

To date, after billions of public dollars have been spent on digital meters, customers have seen absolutely no benefits, nor have utility companies shown any proof of these alleged benefits. To the contrary, in 2009, utility companies in New York State abandoned investments for projects designed to secure the grid against impending severe weather events and costly blackouts. Instead, they appropriated hundreds of millions of dollars in federal stimulus funds for one-way digital meters and the expensive infrastructure needed to support the meters.³ Since then, hundreds of thousands of Americans have suffered harm, including fatalities, due to extended power outages.

8. Utilities claim that transmitting meters only send data for a few seconds each day.

In fact, most digital meters transmit high levels of pulsed RF radiation into the environment and over great distances ***every few seconds or minutes*** throughout the day.⁴ These emitted

³ ABC News *Con Edison Abandons Plans for Upgrades - Power Outages on the Rise Across the USA*

⁴ Central Hudson Digital Meters, Ulster County, New York - Video - Pulsed RF Utility Meter

frequencies can penetrate building electrical systems, causing a dangerous RF radiation antenna effect.⁵

9. Since 2010, utility customers began reporting health problems related to both transmitting and non-transmitting digital meters.

Customers have documented symptoms of radiation exposure (medical code ICD-10 W-90), including headaches, memory and cognitive problems, heart arrhythmia and palpitations, fatigue, digestive disorders and hormonal disruption, insomnia, tinnitus, vertigo, burning and tingling sensations, skin rashes, and nose bleeds. As a result, some individuals are now unable to tolerate RF radiation from digital meters or other electronic and wireless devices. For these individuals, the ability to choose an analog meter is imperative.

10. For all the reasons above, a growing number of states have adopted statewide regulations allowing any customer to opt-out of digital utility meters at no cost.

To avoid a patchwork of conflicting policies and utility regulations, New York should do the same and require that all consumers be afforded the choice of having analog meters installed on their homes and businesses.

*This document was prepared by the New York Smart Utility Meter Association
and Americans for Responsible Technology.*

⁵ *Report on Examination of Selected Sources of Electromagnetic Fields at Selected Residences in Hastings-on-Hudson - Isotope Report – Pages 9, 10 and 12*