

RF Safety

Frequently Asked Questions

Q. WHAT IS RADIO FREQUENCY (RF) ENERGY

A. RF emission describes the energy associated with electromagnetic waves. We are surrounded by everyday conveniences that produce radio frequency emissions, such as cell phones, microwave ovens and baby monitors.

Q. DO METERS EMIT DANGEROUS LEVELS OF RF?

A. Networked Meters do not emit dangerous levels of RF. In fact, RF emissions from a typical meter fall far below federal limits. The RF exposure a person might encounter from a meter in a typical household setting can be of significantly less strength than the RF signals they are exposed to from common electronic devices found within the home, such as cell phones, microwave ovens, Wi-Fi networks and radio and television broadcasts.

Source: Electric Power Research Institute (EPRI), Radio Frequency Exposure Levels from Smart Meters, November 2010.

Q. WHAT ARE THE HEALTH IMPACTS OF RF AND METERS?

A. Scientific panels and government authorities throughout the world have conducted numerous studies about the effects of RF on human health and found no evidence to suggest that RF emissions from networked meters pose any specific health risk.

Q. DO METERS USE RADIO FREQUENCIES REGULATED BY THE FCC?

A. Yes. These frequencies are called industrial, scientific and medical (ISM) radio bands. The FCC designates the ISM frequency bands for equipment and appliances that generate and use RF energy. The FCC opened these frequency ranges for wireless communications in 1985 and, since then, experienced a steadily increasing stream of devices occupying the bands. Their exact ranges are as follows:

	FREQUENCY RANGE (MHZ)	CENTER FREQUENCY (MHZ)
ISM900	902-928 MHz	915 MHz

* Source: Silver Springs Networks, "Radio Frequency Networks Whitepaper: An Analysis of Radio Frequency Exposure Associated with Silver Spring Networks' Advanced Metering Devices," Rev. 11/1/11, page 2.

Q. WHO TESTS FOR THE SAFETY OF METERS BEFORE INSTALLATION?

A. Manufacturers test their meters prior to installation to ensure they meet all FCC standards for safe levels of all emissions.

For more information:

 www.hartemc.com/upgrade/rf-safety

 P.O. Box 250 • 1071 Elberton Hwy • Hartwell, GA 30643

 800.241.4109



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Q. WHAT DETERMINES A PERSON'S EXPOSURE TO RF?

A. Exposure levels depend on signal strength, transmission duration and distance. A report published by the California Council of Science and Technology (CCST) in 2011 included findings from the Electric Power Research Institute (EPRI) that the estimated maximum exposure level at 1 foot from a networked meter is far below the FCC guidelines; at a distance of about 10 feet, the power-density exposure lessens significantly.

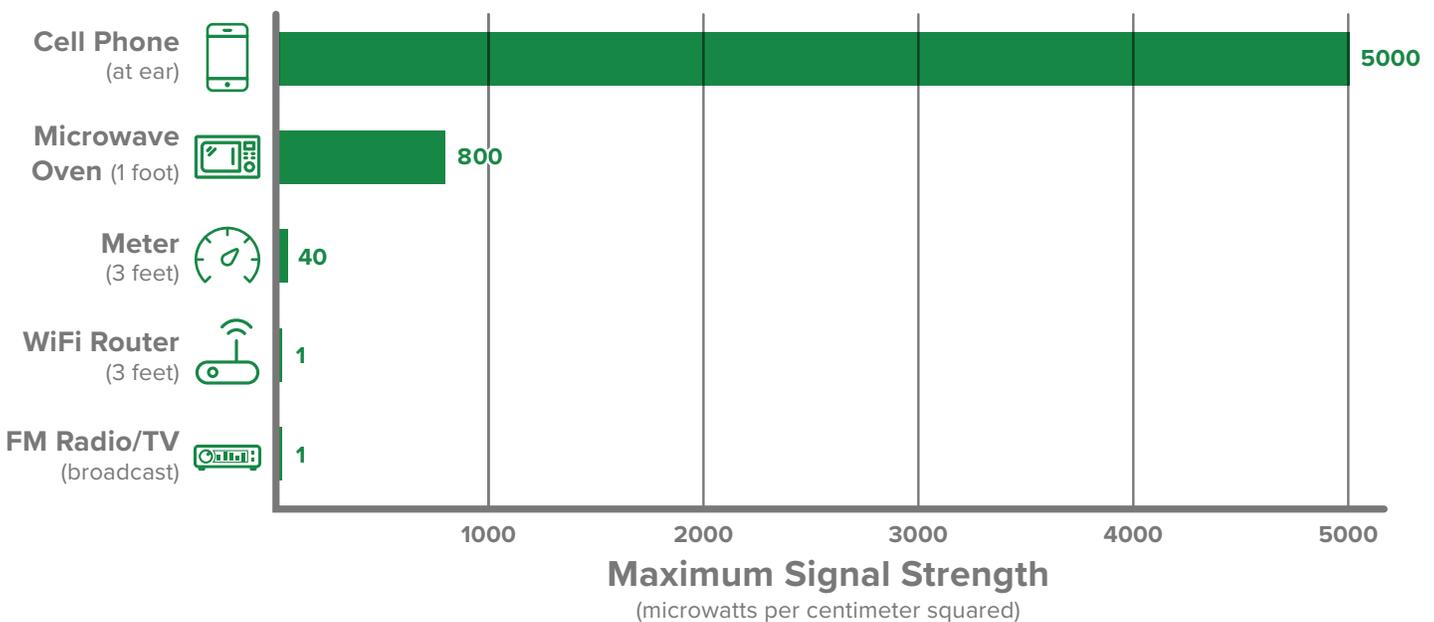
Source: California Council of Science and Technology, "Health Impacts of Radio Frequency from Smart Meters," January 2011.

The exposure a person receives from a meter's RF signal is determined by the person's distance from the meter, the length of time the meter transmits and the power level of the meter.

RF SOURCE	RF OUTPUT COMPARED TO STANDING 2 FEET FROM AN UNOBSTRUCTED NETWORKED METER *
Standing in front of an active microwave oven, 2 inches from door	550x more
Holding a live walkie-talkie to your head	Up to 4,600x more
Holding an active cell phone to your ear	Up to 1,100x more
Using a laptop computer	1.1 to 2.2x more
Sitting in a WiFi café	1.1 to 2.2x more

The RF exposure a person might encounter from a meter in a typical household setting can be significantly less than the RF signals they are exposed to from common electronic devices found within the home.

RF Emissions Comparison



Adapted from the California Council on Science and Technology smart meter study published in April 2011.

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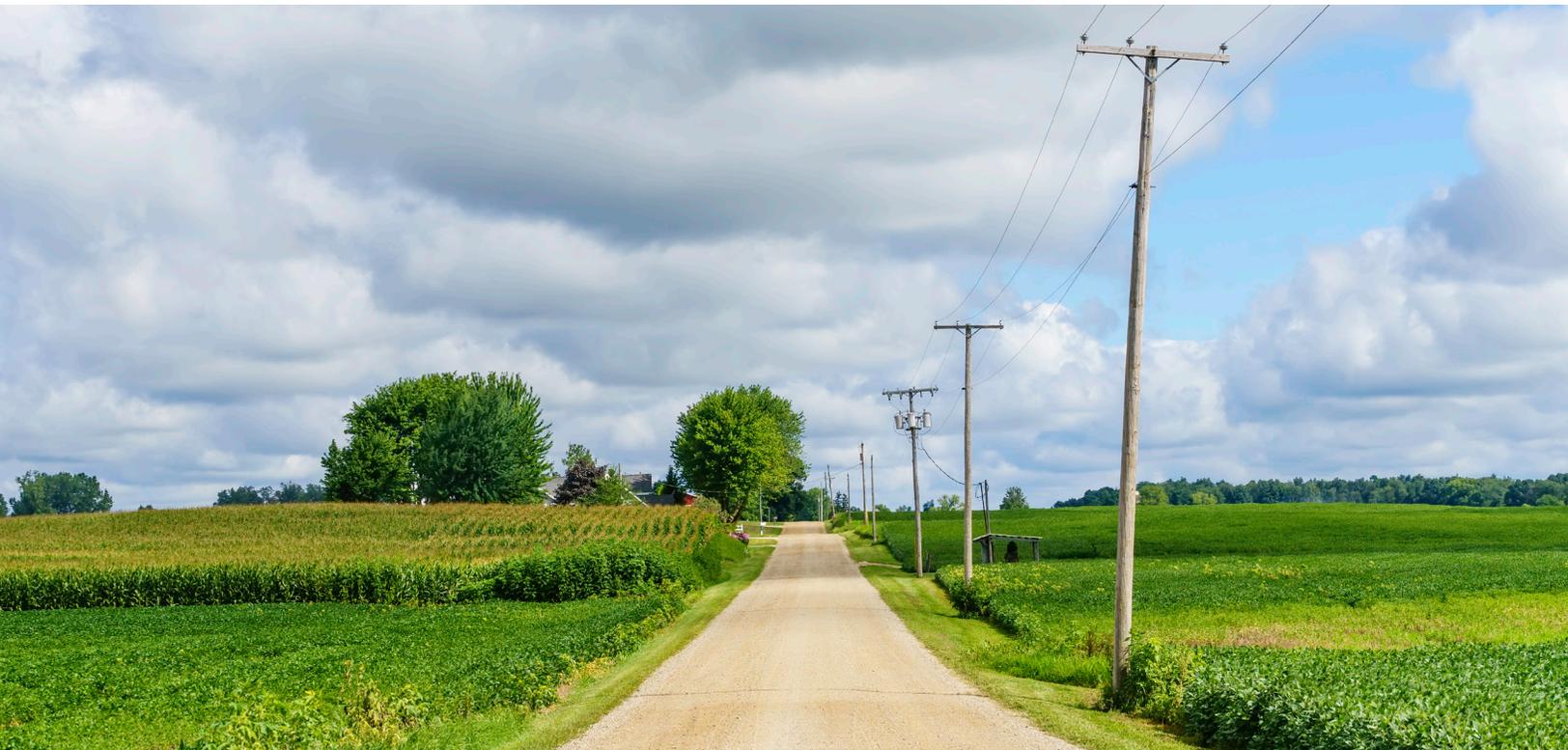
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Hart EMC's meters comply fully with Federal Communications Commission (FCC) health and safety standards and emit RF signals far weaker than the levels permitted by the FCC.

Numerous scientific studies and government authorities have determined there is no evidence to suggest that RF emissions from meters pose any specific health risk.

Our meters emit a low level of radio frequency energy that is both FCC-approved and lower than the level of RF energy emitted by many other devices that are used daily by millions of people. At most, networked meters transmit radio frequency energy intermittently throughout the day, and that energy is reduced further by surrounding materials.



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