

SMART METER RF HEALTH

Landis+Gyr Talking Points (Updated June 2011)

I. Issue Summary:

Radio Frequency (RF) emissions have emerged as an area of concern for many consumers. These emissions are found in many types of electronics, including microwave ovens, cellular phones, other radio based devices and smart meters.

On May 31, 2011, the World Health Organization (WHO) classified RF electromagnetic fields associated with wireless phone use as possibly carcinogenic to humans — a classification known as Group 2B.

Research suggests that RF emissions are found at significantly lower levels in smart meters than in other products, such as cell phones and microwaves, however many anti-smart meter protesters have galvanized around the presence of RF emissions in smart meters as a reason why they should not be installed.

II. Landis+Gyr's Position:

Landis+Gyr is confident about the safety of its products. Landis+Gyr ensures that all of its products are held in accordance with the standards established by international bodies, such as: Federal Communications Commission (FCC), Industry Canada, International Electrotechnical Commission (IEC), and American National Standards Institute (ANSI). The Company continues to monitor new developments in research that offer a better understanding about the possible risks associated with RF emissions. But it is important to note there has never been a documented injury or health problem associated with smart meters.

III. Talking Points/ Compelling Proof Points:

- In the US, the Federal Communications Commission (FCC) has oversight responsibility for RF emissions and exposure, and it has adopted exposure limits that ensure protection of the public and workers. The actual RF emissions from smart meters, however, are a fraction of the limit allowed by the FCC.
- Studies show that RF from today's smart meters is well below that of many devices – home/public WiFi, laptops, cell phones, walkie-talkies and microwave oven -- and is far below the emissions standards set by federal organizations. In fact, RF from smart meters has been shown to be 125 to 1,250 times BELOW that of a cell phone.
- There are over 15 research reports and statements from a variety of private, public and scientific organizations that support this position and this conclusion.
- Due to design, RF exposure from the rear of a metering location (typically “into” or “towards” the premise) is nominally 10 times less than in front of the meter and dramatically below FCC limits

- An RF exposure comparison of a person talking on a cell phone vs a person in proximity of a continuously operating Smart Meter would result in smart meter RF exposure 125 to 1250 times less than the cell phone. (Note that smart meters typically have duty cycles from 1-5%)

Reports and comments are available from:

- California Council on Science and Technology
- Public Utilities Commission of the State of California
- Maine Center for Disease Control & Prevention
- UTC (Utility Telecom Counsel),
- IEEE
- EEI (Edison Electric Institute),
- AEIC (Association of Edison Illuminating Companies)
- WHO (World Health Organization)
- FCC (US Federal Communications Commission)

- Notable Chart: UTC Comparison Chart

The following comparison chart, developed by the Utilities Telcom Council, provides comparative data on the emissions of commonly used devices that emit RF, or environments where RF energy is prevalent to the emissions of smart meters.

| | |
|---|------------|
| FM radio or TV broadcast station signal | 0.005 |
| SmartMeter™ device at 10 feet | 0.1 |
| Cyber cafe (Wi-Fi) | 10-20 |
| Laptop computer | 10-20 |
| Cell phone held up to head | 30-10,000 |
| Walkie-Talkie at head | 500-42,000 |
| Microwave oven, two inches from door | 5,000 |

Source: Richard Tell Associates, Inc.³

- Notable Quotes:
 - California Council on Science and Technology (CCST) - a non-profit organization “Wireless smart meters, when installed and properly maintained, result in much smaller levels of radio frequency (RF) exposure than many existing common household electronic devices, particularly cell phones and microwave ovens.”
 - California Public Utilities Commission The level of “RF emissions produced by Smart Meters is extremely small in comparison to the RF emissions from many other commonly used devices and far below emission standards set by the FCC, which licenses or certifies the Smart Meters.”
 - Maine Center for Disease Control & Prevention. Concluded that existing studies “do not indicate any consistent or convincing evidence to support a concern for [adverse] health effects related to the use of radio frequency in the range of frequencies and power used by Smart Meters

- EEI-AEIC-UTC White Paper In multi-family metering locations: test show RF exposure levels dramatically less than FCC limits. FCC limits were set using safety factors fifty times lower than the levels of known effects.