

factsheet



Environmental Issue

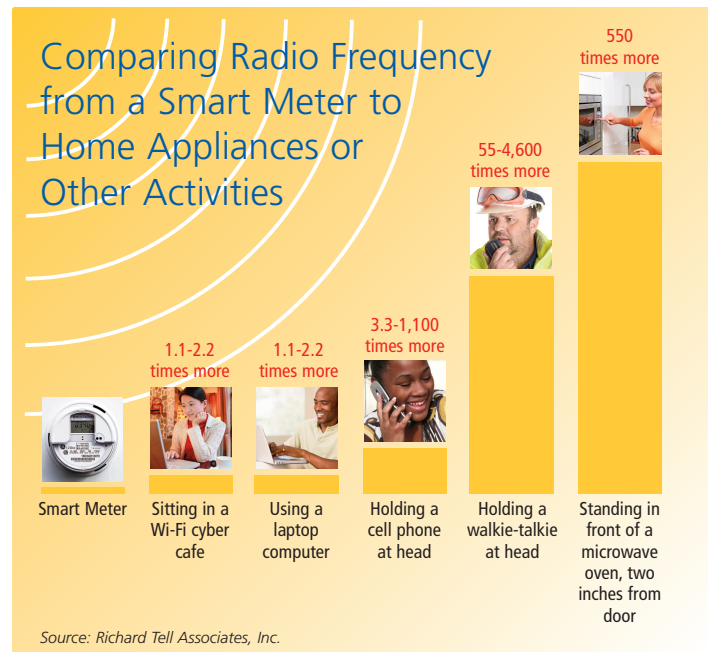
Smart Meters and Radio Frequency Fields

As are many other electric utilities across the U.S., Atlantic City Electric is installing smart meters for its customers as part of the company’s commitment to upgrade its electric system. In the future, these meters will be capable of providing detailed information to promote more efficient use of energy and help customers better manage their costs.

Smart meters are electronic devices equipped with low-powered radios that communicate with the electric utility company and are capable of communicating with compatible appliances and devices in customers’ homes or businesses. The smart meters’ low-level radio frequency (RF) signals are assigned by the Federal Communications Commission (FCC) and are similar to those used by many other everyday appliances such as cellular and cordless phones, garage door openers, baby monitors, televisions, Bluetooth® devices, wireless computer networks and home security systems. The exact frequency used by a particular smart meter will depend on the manufacturer, but the range of frequencies used is typically in the same range used by cellular phones. The smart meters used by Atlantic City Electric comply fully with the RF safety standards established by the FCC.

What Does Scientific Research Report?

Scientific research has been conducted on RF fields and health for several decades. Recent research has focused on RF at cellular phone frequencies; this research is of interest to electric utilities since smart meters emit similar RF signals, although at much lower levels. The Food and Drug Administration (FDA) and other expert U.S. agencies have reviewed the scientific research on RF fields in the cellular



phone frequencies. The FDA has concluded that “the weight of scientific evidence does not show an association between exposure to radio frequency from cellular phones and adverse health outcomes.”

What Technology is Used in Atlantic City Electric’s Smart Meters?

Atlantic City Electric’s smart meters use both 900 megahertz (MHz) and 2.4 gigahertz (GHz) RF signals to transmit information to access points and/or compatible appliances and devices used in customers’ homes or businesses. These are

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frequencies allocated by the FCC that have been used for many years in everyday devices such as cellular and cordless phones, baby monitors, Bluetooth® devices, remote-controlled toys and medical monitors. Atlantic City Electric's smart meters comply fully with the RF safety standards established by the FCC.

Atlantic City Electric's smart meters use low-level RF fields to send signals from meter to meter in a neighborhood to reach a smaller number of pole-mounted radios or access points that send the meter information to data centers, typically through standard cellular phone networks. Both the smart meters and access points comply with RF limits required by federal regulations.

Studies conducted by scientific experts show that exposure to the RF signals from smart meters is very low:

- *Smart meters produce far weaker RF fields than other types of common consumer devices* such as cellular and cordless phones, baby monitors and wireless routers.
- *RF signal strength declines significantly with distance.* Most meters are installed outside of homes and other equipment is located high up on poles so signals reaching a person are very weak.
- *Most smart grid devices use RF fields for only a very few minutes each day.* Rather than continuous output, Atlantic City Electric's smart meters are idle most of the time, only turning on periodically to send a brief transmission. An individual meter is idle more than 99 percent of the time.

How is Atlantic City Electric Addressing RF Issues?

Atlantic City Electric will continue to evaluate relevant requirements and recommendations from regulatory agencies in the U.S. and will address them in its operations.

Atlantic City Electric is aware that some members of the public may have concerns or questions about possible health effects of RF exposures. Therefore, Atlantic City Electric encourages that they review RF safety information provided by the FCC, FDA and other national and international agencies.

For More Information

For detailed information on FCC guidelines for RF exposure, visit the FCC website at: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

For detailed information about the FDA's evaluation of RF exposure and health, visit the FDA website at: <http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/ucm116335.htm>

For detailed information on the Maine Center for Disease Control & Prevention's review of health issues related to smart meters, visit their website at: http://www.maine.gov/dhhs/boh/smart_meters.shtml.

If you would like to speak to a Atlantic City Electric representative or request more information about smart meters and RF, please send an e-mail to: enviroinfo@atlanticcityelectric.com.