

Facts about Advanced Meters and Radio Frequency Emissions

Your concerns about radio frequency (RF) emissions are important. The intent of the information below is to help you better understand advanced meters and provide reassurance about the health and safety questions often associated with them.

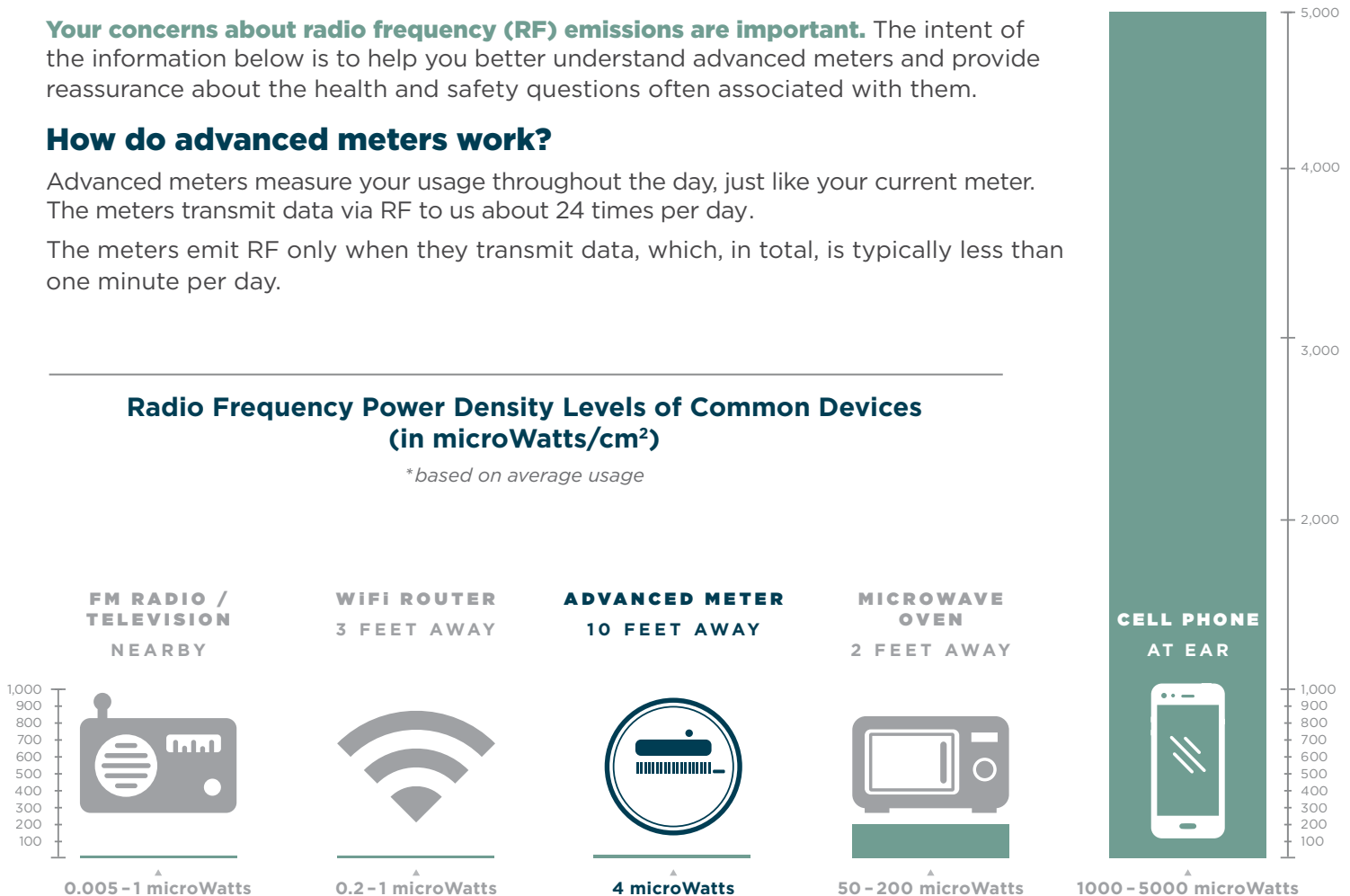
How do advanced meters work?

Advanced meters measure your usage throughout the day, just like your current meter. The meters transmit data via RF to us about 24 times per day.

The meters emit RF only when they transmit data, which, in total, is typically less than one minute per day.

Radio Frequency Power Density Levels of Common Devices (in microWatts/cm²)

**based on average usage*



Data sources: Radio-Frequency Exposure Levels from Smart Meters: A Case Study of One Model
<https://www.epri.com/research/products/1022270>.

SmartGrid Consumer Collaborative, Radio Frequency and Smart Meters,
<http://smartenergycc.org/wp-content/uploads/2012/01/SGCC-Radio-Frequency-Fact-Sheet.pdf>.

Scientific Research about Advanced Meters and Health

- A study by Washington State University determined the amount of energy absorbed from advanced meter radio frequency is substantially less than the Federal Communications Commission (FCC) safety guidelines, even when a person stands close to a meter.
- Based on its review of scientific literature, The World Health Organization concluded there is no convincing evidence that the weak RF signals produced by advanced meters are harmful to human health.

continued on reverse ►

- According to a study conducted by the California Council on Science and Technology, “wireless smart meters result in much smaller levels of RF exposure than many existing common household electronic devices, particularly cell phones and microwave ovens.”

For over 50 years, researchers have studied the potential health impacts of RF energy. With the expansion of cell phone use in the last several decades, experts have published numerous studies about RF energy and cell phones. Research specific to advanced meters concludes that RF energy emitted from them is much lower than from cell phones.

Reputable organizations across the world have reviewed the scientific literature about RF energy. The conclusion among them is **advanced meters do not result in adverse health impacts.**

Your safety is important, and we will continue to review scientific research about the impacts of RF energy.

Scientific Literature

- **Washington State University**
Zhou, L. & Schneider, J. B. (2012). A Study of RF Dosimetry from Exposure to an AMI Smart Meter. *IEEE Antennas and Propagation Magazine*, Vol. 54, No. 6.
- **World Health Organization**
Electromagnetic Fields and Public Health: Base Stations and Wireless Technologies Backgrounder (2006). Retrieved from who.int/peh-emf/publications/facts/fs304/en/.
Electromagnetic Fields and Public Health: Mobile Phones (2014). Retrieved from who.int/mediacentre/factsheets/fs193/en/.
- **European Health Risk Assessment Network**
Valberg, P.A., van Deventer, E., Prepacholi, M.H. (2007). [Workgroup Report: Base Stations and Wireless Networks – Radiofrequency \(RF\) Exposures and Health Consequences](#), *Environmental Health Perspectives*, vol. 115 (number 3), pages 416-424.
- **International Commission on Non-ionizing Radiation Protection**
Swerdlow, A., Feychting, M., Green, A.C., Kheifets, L. Savitz, D.A. (2011). Mobile Phones, Brain Tumors, and the Interphone Study: Where Are We now?, *Environmental Health Perspectives* (vol. 119), pages 1534-1538. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3226506/>.
- **California Council of Science and Technology**
California Council of Science and Technology (2011). *Health Impacts of Radio Frequency Exposure from Smart Meters*. <https://ccst.us/publications/2011/2011smart-final.pdf>.
- **Health Protection Agency (England)**
Health Effects from Radiofrequency Electromagnetic Fields. (2012). Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/333080/RCE-20_Health_Effects_RF_Electromagnetic_fields.pdf
- **European Commission**
SCENIHR Opinion on Potential health effects of exposure to electromagnetic fields (2015). Retrieved from http://ec.europa.eu/health/sites/health/files/scientific_committees/emerging/docs/scenihr_o_041.pdf.
- **Electric Power Research Institute (EPRI)**
Radio-Frequency Exposure Levels from Smart Meters: A Case Study of One Model (February 2011). Retrieved from: <https://www.epri.com/research/products/1022270>.

Opt-Out Policy

We are committed to high quality customer service and have developed an Opt-Out policy to provide you with options.

If you do not wish to participate in advanced metering for your residential electric meter, you have the option to temporarily keep your existing legacy electric meter or receive an advanced electric meter with the radio frequency transmitter turned off. Opting out will require you to pay a monthly fee of \$15. This fee is based on TPU’s cost to provide opt-out service and continue manual meter reading of your meter. Visit MyTPU.org/AdvancedMeters for policy details.