



WHAT TO KNOW ABOUT ADVANCED METERS

You may have heard information recently about advanced meters—sometimes referred to as "smart meters". Many electric and water utilities, including your own Evansville Water & Light, are making use of this technology. Are you wondering what this industry shift means for you in Evansville? Read on for answers to some frequently asked questions.

Q. Is Evansville using advanced meters?

A. Yes. Following several years of careful research and consideration, the Municipal Services Committee approved a plan to transition to advanced electric and water meters. Evansville Water & Light, a not for profit, locally owned utility, is making use of advanced metering as an important tool for the business of operating our community's electric and water systems with our commercial customers.

Q. How do advanced meters work?

A. Advanced meters use a safe, secure and effective two-way radio frequency (RF) communications link that allows our utilities to provide proactive customer service, improve system reliability, and operate more efficiently.

Q. Why are these new meters being installed?

A. These meters are designed to help our utility operate more cost-effectively and to provide more proactive and reliable service to our customers. Advanced meters are an important tool in the ongoing modernization of our community's electric and water systems.

Q. Will my utility rates go up as a result of advanced metering?

A. No. Our use of advanced meters is not anticipated to have any impact on electric or water rates. In fact, this new technology will help bring savings to our community.

Q. How can advanced meters provide savings?

A. Evansville Water & Light's use of advanced meters will help us operate more cost-effectively. The utility currently meters over 3,700 electric meters and 2,200 water meters, and our old system required sending workers out in trucks and on foot to complete monthly readings, conduct regular testing, and perform disconnections and reconnections.

The new meters eliminate the fossil fuel emissions from meter reading vehicles and allow EW&L staff to better utilize their time by providing other high value services for our community. Advanced meters can also quickly alert us of problems that drive up costs for our utilities and our customers. We will be able to more quickly notify customers of costly water leaks, and advanced meters also allow faster detection of instances of theft and meter tampering. Advanced meter data will enable our customers to analyze their electric and water consumption and take advantage of efficiency programs that will provide customers with more control over their usage and bills.

Q. What has Evansville Water & Light done to help keep down the costs of this initiative?

A. Evansville is saving significantly by joining with the 50 other locally owned, not-for-profit utilities served by our power supplier, WPPI Energy. WPPI Energy's members are working together to cost-effectively share data management systems, expertise, support and licensing for our advanced metering software and systems.



Q. How will advanced meters improve my utility service?

A. Advanced metering will enable our staff to provide proactive customer service. Advanced metering allows faster detection of service related problems such as electric outages, power quality issues, water leaks, and potential sources of water cross-contamination. Transitioning to the new meters also helps ensure that our electric and water systems will stay in good working order for the years to come.

Q. Will my privacy be compromised?

A. No. As always, our utilities take seriously our obligation to protect your privacy. That will not change with the use of advanced meters.

Q. What assurance do I have that my privacy is protected?

A. Wisconsin Utilities are required to strictly protect customer usage and billing information, and Evansville Water & Light works constantly to safeguard this data.

Q. Will the advanced meter make it possible to know what I'm doing inside my home?

A. No. The only information collected by an advanced meter is how much energy and water is consumed based on time of day, not how the energy or water is used. Simply put, the information collected by an advanced meter will be used for the same purpose as the data from the old meters: measuring consumption and preparing a bill. The information we receive can be used to let us know if something is running when it shouldn't be and assists in solving high bill concerns for customers. In the case of water, we can tell if you have a leak if water is running continuously for 24 hours. That saves the customer on water and sewer charges.

Q. Are advanced meters safe?

A. Yes. While advanced meters have become the subject of considerable attention for their use of low-level RF, in-depth review of the scientific literature by the World Health Organization (WHO) confirmed that the small amount of RF energy produced by smart meters is not harmful to human health.¹

In the US, the Federal Communications Commission establishes the requirements for use of the RF spectrum and acceptable exposure limits for the public. Evansville Water & Light's advanced meters, which are manufactured by Elster, comply with and are far below these requirements, as well as international requirements set by global bodies.

Evansville Water & Light takes your health and safety seriously and would never install equipment that would jeopardize the safety and well-being of our customers. Our relationship with you is Evansville Water & Light's top priority.

Q. How significant is the RF signal from an advanced meter?

A. The low level of RF emissions associated with advanced meters is far smaller than that of other common household items.² In fact, everyday devices such as cellular phones and microwave ovens typically cause far greater RF exposure than advanced meters.³ In terms of RF output, Evansville Water & Light's advanced meters typically compare as follows to other common household wireless devices:⁴

SMART METER
900 MHz



BABY MONITOR
7 X GREATER



Wii REMOTE CONTROLLER
30 X GREATER



NINTENDO DS WITH WiFi
180 X GREATER



Wifi ACCESS POINT
400 X GREATER



CORDLESS PHONE
1,000 X GREATER



CELL PHONE
10,000 X GREATER



Furthermore, RF exposure decreases with distance from the device. Evansville Water & Light's advanced meters are typically installed on the exterior of a building, whereas much higher-emitting devices such as microwaves and mobile phones are often operated a few inches or a few feet from the user. In addition, while other common household devices emit RF signals far more frequently, or even constantly, *Evansville Water & Light's advanced meters typically will only transmit a signal every four hours, and each transmission lasts for approximately 1.5 seconds.*

¹ World Health Organization. <http://www.who.int/peh-emf/about/WhatisEMF/en/index1.html>.

² Environmental Defense Fund. <http://www.who.int/peh-emf/about/WhatisEMF/en/index1.html>.

³ Richard A. Tell, Richard Tell Associates, Inc. (April 6, 2005).

⁴ Based on FCC 47CFR1.1310, which averages exposure over 30 minutes of usage. Comparative data provided by Elster.



Q. What if I have questions or want more information?

A. Our community-owned utility is committed to keeping you informed about this important initiative. We will provide regular updates at Municipal Services Committee meetings and customer questions are always welcome. For project updates please contact utility staff at **608-882-2280**.

Q. What is the timeframe for Evansville advanced metering initiative?

A. Evansville Water & Light has installed advanced metering on many of the larger businesses in the community, as well as many residential homes and small businesses. This has verified the technology and processes that will be utilized during full implementation. With the approval of the Municipal Services Committee and the City Council, we expect to transition to the use of advanced electric and water metering in 2018 and 2019.

Q. How are Advanced Meters different than what we have used in the past?

A. The new meters use cutting edge technology that transmits less frequently than the old meters. Staff will no longer need to drive around town to read the meters. This eliminates fossil fuel emissions from meter reading vehicles and allows EW&L staff to better utilize their time by providing other high value services for our community. Also, when we have outages, we can save time in diagnosing which meters are without power, helping us get the lights back on faster.

At Evansville Water & Light, we join forces with other local not-for-profit utilities through WPPI Energy to share resources and lower costs.

**Evansville
Water & Light**
A Public Power Community Est. 1901

ci.evansville.wi.gov (608) 882-2280

Shared strength through  WPPI Energy