



## 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 Waunakee Utilities, are making use of this technology. Are you wondering what this industry shift means for you in Waunakee? Read on for answers to some frequently asked questions.

### Q. Is Waunakee Utilities using advanced meters?

**A.** Yes. Waunakee's 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 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.** They will help our utility to 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. What are the benefits to customers?

**A.** Waunakee Utilities' use of advanced meters will help us operate more cost-effectively. The utility currently meters more than 6,000 electric and 4,800 water customers, and our old system required sending workers out in trucks 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 Waunakee Utilities staff to better utilize their time by providing other high value services for our community. Advanced meters can also quickly alert us to problems that drive up costs for our utilities and our customers. We will be able to more quickly alert customers to 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 Waunakee Utilities done to help keep down the costs of this initiative?

**A.** Waunakee 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 utility takes seriously our obligation to protect your privacy. That will not change with the use of advanced meters. Waunakee Utilities is also subject to the FACT Act (Fair and Accurate Credit Transactions Act of 2003), which requires federal agencies to establish guidelines for use by creditors to prevent identity theft. As a creditor, Waunakee Utilities has implemented an identity theft prevention program under these guidelines.

## 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 Waunakee Utilities 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.

## 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.<sup>1</sup>

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

Waunakee Utilities 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 Waunakee Utilities' 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.<sup>2</sup> In fact, everyday devices such as cellular phones and microwave ovens typically cause far greater RF exposure than advanced meters.<sup>3</sup> In terms of RF output, Waunakee Utilities' advanced meters typically compare as follows to other common household wireless devices:<sup>4</sup>

**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. Waunakee Utilities' 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, *Waunakee Utilities' advanced meters typically will only transmit a signal four times per day, and each transmission lasts for approximately one second.*

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

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

<sup>3</sup> Richard A. Tell, Richard Tell Associates, Inc. (April 6, 2005).

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



**Q. What is the time frame for Waunakee's advanced metering initiative?**

The conversion of the electric meters has begun and is expected to be completed by the end of 2019. The water meter conversion is expected to be completed by the end of 2022.

**Q. How is the proposed advanced meter different from what we currently use?**

**A.** The new meters are much more efficient when compared to the old meters. 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 Waunakee Utilities staff to better utilize their time by providing other high value services for our community.



At Waunakee Utilities, we join forces with other local not-for-profit utilities through WPPI Energy to share resources and lower costs.