



# UNDERSTANDING RADIO FREQUENCY AND YOUR NEW METER

Duquesne Light is replacing customers' current electric meters with new, digital models. This exchange is part of an overall upgrade of the company's metering infrastructure required by Pennsylvania Act 129.

Once fully enabled, our new advanced metering infrastructure will provide access to online tools that can help you manage your electric bill, set up email or phone alerts to warn you of potential high bills and, longer term, enhance our power restoration process following storms, including communication that can help you manage through times without power.

## WHAT IS AN ADVANCED DIGITAL METER AND HOW DOES IT WORK?

Just like traditional analog meters, advanced digital meters measure how much electricity you use. The main difference is that advanced digital meters collect that information more times throughout the day. These new meters also allow two-way communication between the meter and Duquesne Light via a secure wireless network.

## WHAT IS RADIO FREQUENCY?

Radio frequency (RF) is a form of electromagnetic energy – both natural and man-made – that moves through space at the speed of light. RF waves are used for a variety of purposes, including telecommunication and satellite transmission of data. Every day, people use or are in close proximity to many devices that use RF, including cell phones, microwave ovens, wireless Internet for your computer, baby monitors and garage door openers. Both the traditional analog meters and the advanced digital meters use low-energy RF waves to transmit your electricity-use information to Duquesne Light.

*Continued on back*

RADIO FREQUENCY LEVELS FOR ADVANCED DIGITAL METERS ARE SIGNIFICANTLY LOWER THAN MOST EVERYDAY WIRELESS HOUSEHOLD ITEMS, SUCH AS CELL PHONES.



**DIGITAL METER**  
0.0050 milliwatt/square cm



**CELL PHONE**  
0.19 milliwatt/square cm



The World Health Organization has concluded that no adverse health effects have been demonstrated to result from exposure to low-level RF, such as that produced by advanced digital meters.

#### WHAT IS RADIO FREQUENCY? CONTINUED

The Federal Communications Commission (FCC) has established safe limits for RF exposure. As with any device that uses RF, advanced digital meters have been monitored, tested and certified to ensure they meet certain safety standards. The low-level RF exposure from advanced meters is well below the limits set by the FCC. In addition, according to a study by the California Council of Science and Technology, wireless advanced meters, when installed and properly maintained, result in much smaller levels of RF exposure than most of the common household electronic devices listed on the previous page.

#### OTHER THINGS TO KEEP IN MIND

- The RF output of the new digital meters is consistent with the output of Duquesne Light's current analog meters, which have been measuring and transmitting customers' usage wirelessly for almost 20 years.
- Advanced digital meters will transmit RF waves only for very short periods every day to send your energy-use information to Duquesne Light.
- RF waves weaken significantly as the distance between you and the device increases. The casing of an advanced meter, as well as the walls of your residence, also decrease the level of RF energy.



#### IN CONCLUSION

Duquesne Light's new advanced metering infrastructure network will safely put more information in the hands of our customers, allowing you to make more informed decisions about your energy consumption. This network will help create a more efficient, more reliable, and more sustainable electricity world for generations to come.