SERVICE IMPROVEMENT

UPDATE

NIPSCO
A NiSource Company

UNDERSTANDING ADVANCED METER RADIO FREQUENCY (RF) TECHNOLOGY

NIPSCO is always looking at ways to increase safety and reliability of our service to you, and we are upgrading the way we read electric and natural gas meters through the installation of an Advanced Metering Infrastructure, or AMI, system. AMI enables NIPSCO to improve service to our customers and operate more safely.

BENEFITS

- Faster restoration times during an outage or emergency
- Improved customer service by increasing the frequency of meter readings
- Greater visibility into energy usage and access to on-demand meter reading
- And more!

ADVANCED METERS AND RADIO FREQUENCY (RF) OUTPUT

- Advanced meters securely communicate your usage through low-power radio frequency transmissions. *(Electric Power Research Institute, 2011)*
- Most environments have numerous sources of RF emissions to which most people are exposed to some extent.
- The total exposure depends on one's proximity to the source and intensity of the emission.
- Everyday items such as microwave ovens and cell phones have higher radio frequency output than an advanced meter.

FAQS

WHAT IS AN ADVANCED METER?

An advanced meter allows two-way communication on an advanced metering network to keep both the utility and customer informed with up-to-date usage information. Meters communicate with nearby two-way field collector radios and send data back to the utility. Meters have the ability to more quickly report on alerts or alarms from the meter, including outage information, and can be remotely connected and disconnected to support processes like customer move-in/move-out, as well as disconnect in emergency situations.

ARE THE RADIO FREQUENCY (RF) WAVES PRODUCED BY THE NEW EQUIPMENT HARMFUL TO MY HEALTH?

No. The updated meters NIPSCO is deploying comply with the Federal Communications Commission (FCC), World Health Organization, and international requirements for acceptable radiofrequency (RF) exposure limits. Advanced meters present significantly lower RF exposure than many other products used daily by consumers without concern. The updated meters emit only low-energy frequency waves to transmit information, with levels well below that of common devices such as mobile phones and laptops.

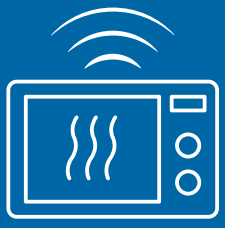
HAS THIS NEW AMI EQUIPMENT BEEN TESTED FOR ACCURACY AND RELIABILITY?

Yes, AMI meters come pre-tested, and test results are directly from the manufacturer. The radio module will be tested for accuracy during the meter collection process regularly. In addition, we do an accuracy test separately to a sample set of meters to validate the accuracy of the manufacturer tests.

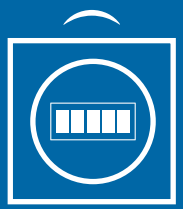
RADIO FREQUENCY OUTPUT COMPARISONS

Advanced meters transmit usage data securely using low-power radio frequencies, emitting less RF than everyday household items like microwaves and cellphones.

CELL PHONES
3.3 - 1,100 TIMES MORE THAN ADVANCED METERS



MICROWAVES
550 TIMES MORE THAN ADVANCED METERS



ADVANCED METERS

LEARN MORE ABOUT ADVANCED METERS AND RADIO FREQUENCY (RF) OUTPUT BY VISITING

- Xylem.com
- FCC.gov

QUESTIONS?
NIPSCO.COM/AMI OR 1-855-368-2494

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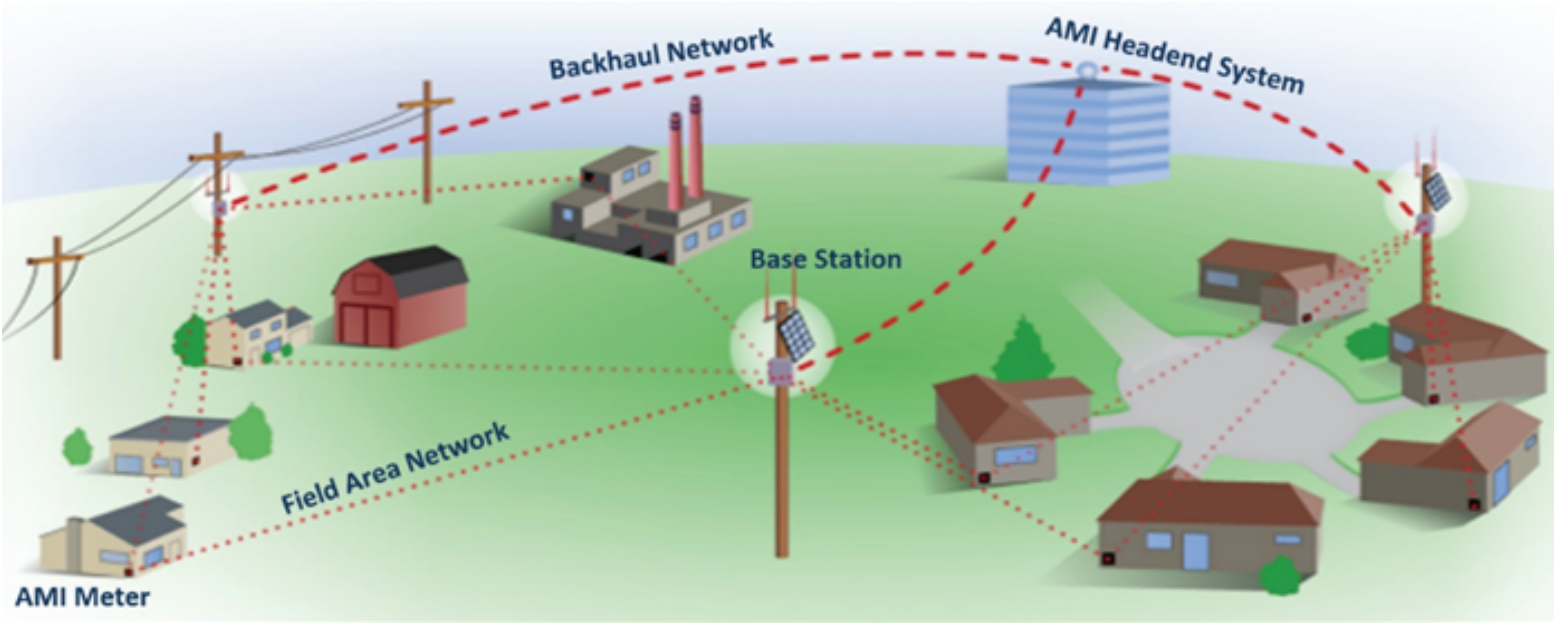
MORE FAQS

WILL THE AMI IMPACT MY COMPUTER, HOME SECURITY SYSTEM, OR OTHER ELECTRONIC EQUIPMENT?
No. The AMI radio transmission operates in compliance with Federal Communications Commission Regulations to avoid interference with other electronic modules. The system operates at such a low frequency reserved for this purpose that it will not interfere with the operation of any other equipment on your property.

IS MY ADVANCED METER ON A 5G CELLULAR NETWORK?
No, your NIPSCO-installed advanced meter is not on a 5G cellular network. Advanced metering does not use cellular networks to transmit information. It uses radio frequency outputs to communicate with NIPSCO Base Stations. (pictured below)



THERE ARE MORE THAN 90 MILLION AMI UNITS DEPLOYED IN THE UNITED STATES. THEY ARE PROVEN TO BE SAFE, SECURE AND RELIABLE. AMI METERS ARE ALSO KNOWN AS "SMART METERS".

ASIDE FROM MY ADVANCED METER, HOW ELSE IS RF USED?
Radio frequency (RF) energy is mainly used in telecommunications, such as radio, TV broadcasting, and cellular phones (FCC, 2016). It's also used in microwave ovens to heat food quickly, radar for traffic and military applications, and industrial processes like molding plastics and sealing products. Additionally, RF energy has medical applications, including diathermy and MRI.

PLEASE NOTE THAT SOME BENEFITS OF ADVANCED METERING MAY NOT BE AVAILABLE UNTIL FUTURE YEARS.

REFERENCES & SOURCES

- Electric Power Research Institute. (2011). Radio-Frequency Exposure Levels from Smart Meters: A Case Study of One Model Radio-Frequency Exposure Levels from Smart Meters: 2 February 2011 A Case Study of One Model Radio-Frequency Exposure Levels from Smart Meters: A Case Study of One Model. Electric Power Research Institute. https://www.socalgas.com/documents/ami/EPRI_1022270.pdf
- FCC. (2016, October 11). RF Safety FAQ. Federal Communications Commission. https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety
- Understanding RF and Smart Meters | Xylem US. (2024). Xylem.com. https://www.xylem.com/en-us/solutions/communication-networks/understanding-rf-and-smart-meters/