

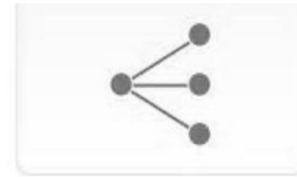
Automatic Metering Infrastructure and Radio Frequencies

Advanced metering works via wireless technology to send readings to a regional collector that transmits your water meter usage data to Village Hall. The system works via wireless radio frequency (RF) signals sent from a transmitter unit that is most often located on the exterior of the building. Sensus' FlexNet AMI fixed-base network communicates via primary-use FCC-licensed spectrum. It serves as a dedicated and secure two-way communications network that transmits at less than 2 watts of power. Elk Grove Village will have two regional collectors. Each transmitter will send four transmissions a day, for a total duration of 15 seconds per day.

Wireless AMI Network Topology

FCC-licensed spectrum utilized on a point-to-multipoint network

In a licensed spectrum point-to-multipoint network, the data collector can talk to all endpoints individually, and endpoints can transmit information back to the data collector. There are no radio frequencies that are bounced back and forth between transmitters, like in an unlicensed spectrum with a mesh network.



FlexNet Point to Multipoint

Will the meter interfere with my internet router or other WIFI devices?

The wireless portions of the system will be operated according to Federal Communications Commission rules on a licensed spectrum, and will not interfere with other radio frequencies in the area. To eliminate interference, if the meter senses RF communications in progress from other sources on its frequencies, it will wait and transmit at a later time.

What about the health risks?

According to the FDA and the World Health Organization (WHO), among other organizations, to date, the weight of scientific evidence has not effectively linked exposure to radio frequency energy from mobile devices with any known health problems.

Calculations corresponding to a "worst-case" situation (all transmitters operating simultaneously and continuously at the maximum licensed power) show that, in order to be exposed to RF levels near the FCC's guidelines, an individual would essentially have to remain in the main transmitting beam and within a few feet of the regional collector for several minutes or longer. Thus, the possibility that a member of the general public could be exposed to RF levels in excess of the FCC guidelines is extremely remote. Additionally, If an individual was on the other side of the wall from a transmitter during transmission time, they would be exposed to 0.03 percent of the level established as safe by the FCC guidelines.

Radio Frequency levels measured in uW/cm²

Cell Phone at ear	1000
Microwave Oven 2 feet away	50
Transmitter 3 feet away	40
Transmitter 10 feet away	4
WiFi Router 3 feet away	0.2
FM Radio TV Broadcast	0.005

Have you read that smart meters can catch on fire?

Previous occasions where smart meters have been reported to burst into flames occurred only in electric smart meters, not water smart meters. The source of these fires was an electric hot socket in the meter. Water meters do not have an electric hot socket. The iPERL meter is rated to withstand 140 degree F air temperatures. Temperatures above that can cause damage to the meter, like melting plastic. Combustion may occur only if the water meter is exposed to temperatures that are extremely high, like 400 degrees F or above. All Sensus meters have exceeded the United Laboratories (UL) Safety Standards.