SMART METERS: ARE CUSTOMER CONCERNS GROUNDLESS?

By: Phil Carroll, VP, P.E.

Ever since the introduction of cell phones, numerous concerns have been raised about their health, safety, privacy and security. Yet, hundreds of millions of people around the world seem comfortable enough to ignore such concerns, and sales and use of cell phones continue to grow, because, as people say, “I need my cell phone.”

Similarly, ever since the introduction of smart meters, concerns have been raised about their health, safety, privacy and security. Largely, though, public reaction has been different than it has been for cell phones. While most people are unaware of such concerns, many of those who are aware have been mounting sometimes strong and coordinated campaigns to either get smart meters banned, or at least allow customers to opt out.

This current environment requires that utilities in the process of rolling out smart meters understand public concerns, founded or unfounded, and know how to address them. First, a summary of the concerns.

Health Concerns: Numerous concerns (both through scientific research on RF radiation waves, as well as through anecdotal reports) have been raised about increases in serious health problems, such as genetic defects, cancer, developmental abnormalities, neurological diseases, and heart rhythm problems, as well as less serious problems, such as insomnia, nausea, fatigue, headaches, dizziness, and other cognitive disturbances as a result of the RF radiation waves being emitted by smart meters. Most of the anecdotal cases and complaints are from people whose bedrooms happen to be very near smart meters (i.e., smart meters located just outside their bedroom walls), such that they sleep in relatively close proximity to the meters every night.

Utilities respond that, while meters do emit RF radiation, the levels are lower than cell phones, cordless phones, and baby monitors. Second, the RF signals from smart meters generally occur only momentarily, once an hour, not continuously. Third, most meters tend to be placed on outside walls of homes that are far away from human activity (such as garage walls), and thus not only provide distance, but also have at least one wall to block the RF radiation. A page on the American Cancer Society’s website that is devoted to the health effects of smart meters essentially agrees with these assessments. However, public concerns still exist.

Safety Concerns: According to an article published on May 13, 2013, by Fox News in Washington, D.C., smart meters have been linked to over 900 fires nationwide. One local utility responded to this number, noting that, while fires have occurred, most of the ones with which they were familiar were the result of either old house wiring or the meters not being tightly seated, possibly leading to arcing. In other words, the meters themselves were not the cause of fires.

Privacy Concerns: A third concern relates to potential loss of privacy. A report published in August 2014 by the American Public Power Association, titled, “Smart Grid Data Privacy Concerns: An Overview of Recommended Guidelines,” noted that: “Since smart meters measure customer electricity usage in far more granular time increments than standard meters, some customers perceive that utilities will know more intimate information about their electricity usage. Rightly or wrongly, some customers are uncomfortable with utilities or any other outside party possessing such fine levels of information.” That is, the concern is not only with the utilities themselves having access to this information, but also possibly selling it to outside parties.

Security Concerns: A fourth concern that is frequently raised is that if criminals are able to hack a utility’s system, they can gain access to private information, such as when homeowners are likely not to be home, making it easier to commit break-ins.
Because of all of these concerns, a number of states have passed, or are in the process of passing, legislation to allow customers to opt out of smart meters being installed at their residences. On top of this, a number of state public utilities commissions are in the process of adopting regulations to make it easier for customers to opt out.

Whether your state or public utilities commission requires you to allow customers to opt out of smart meters, there are some steps you should take when considering a smart meter program.

First, create a public outreach program designed to educate consumers on the benefits of smart meters. Second, if there is any public backlash, design an education campaign to allay these concerns (such as information from the American Cancer Society website, your policy on ensuring consumer privacy, your security practices to prevent hacking, etc.). Third, as a way to prevent long-term public backlash, consider allowing customers who still have concerns to opt out.

The first two steps are vitally important, though. If you don’t educate customers on the benefits of smart meters, and how the majority of concerns are likely groundless, wholesale fear may take center stage, and large numbers of uneducated customers may opt out. The problem with this? “If enough people opt out, it really dampens the positive impacts the technology can have on the system as a whole,” said Shanna Cleveland, senior lawyer at the Conservation Law Foundation, in a June 1, 2013 article in The Boston Globe.