

Advanced Metering: FAQ

Texas is among the nation's leaders in rolling out advanced metering technology. Sometimes called "smart meters," these devices allow for two-way communication between the home or business and the electric utility, providing benefits for consumers.

Advanced meters and associated products help consumers understand the impact of controlling their energy consumption, better managing their bills and reducing their environmental impact. They also automate utility functions, such as meter reading and connection for new service. This reduces the cost of service as well as emissions from utility trucks.

Advanced metering will allow retailers and utilities to offer new, time-of-use products to interested consumers, thus promoting adoption of energy efficiency technologies and reduced electric consumption. In addition, a fully-deployed advanced metering system allows electric grids to operate more efficiently, creating system-wide improvements in reliability and reduced emissions.

See below for responses to common questions regarding advanced meters and the smart grid.

Q: If a consumer does not want an advanced meter, can he or she opt-out?

A: No. Part of the policy reason for installing advanced meters throughout the system is that the benefits are most apparent when all consumers have them. In order for consumers and society at large to see the complete benefits of advanced meters—including timely information on usage and improved reliability—deployment needs to be widespread, not patchwork. The analog meters, many of which are no longer manufactured, cannot provide the level of service offered today.

Moreover, a mix of advanced meters and analog meters would create a chaotic system. If some consumers have analog meters that are unable to communicate, they would require special assistance, such as a continued need for meter readers, thus eliminating the system-wide efficiencies and reduced costs.

Q: Would an opt-out provision impact reliability?

A: Yes. Advanced meters are necessary to diagnose the location of outages for both that customer and their neighbors. If the advanced meter is not in place, the utility would not know if that customer has service or not.

Q: How would an opt-out provision hurt upgrades to the electric grid?

A: Advanced meters represent a single component of the electric grid, and like any technological equipment, meters have to be upgraded regularly. Utilities are investing money system-wide to ensure consumers have better access to usage information, improved reliability and faster outage restoration, as well as other benefits. The meters themselves are part of the broader, utility-owned infrastructure, providing data for improved electric grid performance while saving consumers money. In that sense, it's similar to a utility upgrading a transformer in its network. Meter upgrades can also be compared to AT&T upgrading from copper wire to fiber-optic lines or TV networks switching broadcast signals to higher capacity digital spectra.

Q: Are advanced meters more accurate than traditional meters?

A: Yes. Comparison tests of advanced meters with traditional meters show the new meters are more accurate, in addition to providing greater detail of energy usage.

Q: Smart meters emit radio frequency radiation to communicate with utilities. Are they safe?

A: Yes. The intermittent radio frequency fields produced from advanced electrical meters are well below those of other household items, such as cordless phones and microwaves. The amount of radio frequency emitted is in line with what a typical baby monitor produces, though smart meters are, of course, located outside the home and not used for personal communication. In addition, smart meters typically communicate only a few times per day for a very, very short period of time.

Q: Are there standards regulating advanced meter radiation?

A: Yes. The Food and Drug Administration and the Federal Communications Commission have developed safety standards, with which all advanced meters in Texas comply. The FCC has found no scientific evidence that suggests the weak intermittent RF emitted by smart meters pose a health or safety risk.

Q: Are the FCC radio frequency safety standards adequate?

A: The FCC studied RF for years prior to adopting its Maximum Permissible Exposure limits for radio transmitters of all types, including advanced meters. The FCC also adds a margin of safety. The advanced meters in use today operate at a level far below those limits.

Q: Will advanced meters interfere with home wireless networks?

A: No. The bands of spectrum are unlikely to overlap, and even if they do, WiFi networks are designed to work in the presence of other radios.

Q: Will advanced meters interfere with wireless or cordless phones?

A: No. Advanced meters typically have their own frequency band that does not overlap with wireless or cordless phones?

Q: Advanced meters record usage throughout the home. Doesn't this make advanced meters a violation of privacy?

A: No. Advanced meters only measure the total usage of the home; they do not measure usage of any appliance within the home. Under Texas law, the customer owns his or her electric usage information. There are specific consumer protections in place related to how that data is used and who has access to it. Electric utilities in Texas are legally bound by state law to protect consumer information of all types, including meter data, and exercise great care to do so. Moreover, utilities have collected this data from large commercial and industrial customers and some residential customers through load research for years. Plus, analog meters have always allowed utilities to record usage without any privacy concerns.

Q: Are advanced meters vulnerable to hackers?

A: Utilities apply best practices to protect all their information networks, including advanced meter communications. This information is protected through many firewalls, and utilities are vigilant to monitor and refine their cyber security tools.

Q: What products are available that take advantage of advanced meters?

A: Advanced meters can make possible products including pre-paid service, time-of-use rates and energy analysis tools to give consumers the information they need to reduce energy usage. Advanced meters can also become the central network to allow consumers to remotely control electric appliances, thus using power at times of day when it is least expensive and most efficient.