

Key Issues in Perspective:

SMART METERS and DATA PRIVACY

The electric power industry is modernizing the nation's electric grid. Using advanced technologies, electric companies are building a smart grid that will deliver more reliable power to customers across the country and allow two-way communication between customers and their electric companies.

Installing smart meters is an important step in building the smart grid. These advanced meters enable customers to track their power usage and learn more about the way they use electricity. This will help customers better manage their electricity usage in the future.

Smart meter technology also allows electric companies to detect power outages more precisely and to restore power more quickly. In fact, some outage actually may be avoided by giving electric companies more options to reduce demand when the system is under stress. The meters also provide data to electric companies, enabling them to operate the electric grid more efficiently.

As with any new technology, customers have questions about how a smart meter works and what impact it may have on their lives. We've developed a series of frequently asked questions (FAQs) and answers to address key topics. The following FAQs discuss the privacy and security of the electricity usage data collected and transmitted by smart meters. As the smart grid allows electric companies to collect real-time customer usage data, customers want to ensure that their data are secure. America's electric companies work hard to protect the privacy of their customers' data—and continue to make data privacy a key priority as the smart grid develops. For more information about the smart grid, visit SmartGrid.eei.org.

■ **What is a smart meter?**

A smart meter is a digital upgrade to the decades-old mechanical meter found in homes and businesses across the country. A smart meter uses advanced technology to communicate the electricity usage of your home or business to your electric company through remote communication technologies. This means that your electric company no longer will need to send someone to read your meter on a regular monthly basis.

The meter's digital technology also enables two-way communication between you and your electric company. This two-way communication allows your electric company to identify and respond more quickly to potential problems, like power outages. Your electric company also may have the ability to communicate current electricity prices to you—empowering you to better manage your electric bills.

Smart meters look similar to traditional mechanical meters, but the digital technology inside the meter makes them more efficient. Electric companies currently are installing smart meters in homes across the country.

■ **How often do smart meters transmit data to my electric company?**

That depends on the specific technology powering your meter and the data requirements of your electric company. However, most smart meters send usage data to your electric company one to four times a day. Some systems are programmed to send data as often as every 15 minutes.

■ **How do I know my electricity usage data remain private and secure?**

America's electric companies work hard to protect the privacy of their customers' data—and have always done so. As the smart grid allows electric companies to collect customer usage data on a more frequent basis, electric companies will be able to use this information to provide more personalized customer service. Electric companies also use customer data to help with their operational and business planning.

Electric companies are making the security and privacy of customer data a key component of the grid modernization effort. Companies use advanced encryption technologies to protect all data transmitted by smart meters. Electric companies also comply with the data privacy guidelines and regulations set by state public utility commissions.

Since protecting customer data is a top priority in modernizing the grid, electric companies are working with federal agencies, such as the Department of Homeland Security, the Department of Energy, and the National Institute of Standards and Technology (NIST), to adapt existing privacy and security standards to meet the new data requirements that accompany smart grid technology. NIST guidelines are being applied to remote access, authentication, encryption, and the privacy of metered data and customer information.

■ **How do state regulators help to ensure that my data are secure?**

Electric companies are highly regulated at the state level. Before an electric company can implement a smart meter program, it must submit to its state regulatory commission detailed plans that describe how the data security systems will protect customer data. State regulators closely monitor the privacy safeguards that are being developed for the new smart grid technology systems.

■ **What steps are being taken to protect my smart meter from cyber security threats?**

Cyber security threats can cause disruptions in the flow of power and other problems if cyber intruders send computer signals to the electronic controls used in some electric generation and transmission infrastructure. The electric power industry takes cyber security threats very seriously. In fact, electric companies must meet mandatory cyber security standards that require companies to implement training, physical security, and asset recovery plans to protect against the threat of cyber attacks.

As the smart grid is built, electric companies are incorporating cyber security protections into both the grid architecture and the new smart grid technologies. The electric power industry is working closely with vendors, manufacturers, and government agencies to ensure that the smart grid is secure. These measures also help to ensure that customer data remains protected from cyber security threats.

The **Edison Electric Institute (EEI)** is the association of U.S. shareholder-owned electric companies. Our members serve 95% of the ultimate customers in the shareholder-owned segment of the industry, and represent approximately 70% of the U.S. electric power industry. We also have as Affiliate members more than 80 International electric companies, and as Associate members more than 200 industry suppliers and related organizations.

Organized in 1933, EEI works closely with all of its members, representing their interests and advocating equitable policies in legislative and regulatory arenas.

EEI provides public policy leadership, critical industry data, strategic business intelligence, one-of-a-kind conferences and forums, and top-notch products and services.

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