

Advanced Metering Infrastructure Policy Recommendation



The energy industry is changing. And more than ever customers want new ways to manage their costs and become active participants in making energy decisions.

Customers want energy management tools such as smart thermostats and high-efficiency appliances. They're demanding more detailed information about their energy use so they can make wiser decisions that save money and help the environment, including information about renewable energy options such as solar photovoltaics. And when it comes to powering their lives, customers expect more reliability and immediate response when the lights go out. In short, the modern energy user wants more choice, control, and convenience.

To empower customers with technology, better integrate distributed energy resources, and modernize the grid, Con Edison is proposing Advanced Metering Infrastructure, known commonly as smart meters. Already, nearly half of U.S. households are equipped with AMI.

With AMI, customers will have access to new energy management tools that will give them detailed information about their energy use. Innovative startups could create Apps that would allow customers to view and use their energy data in a variety of ways.

At the same time, Con Edison will be able to automatically detect when customers lose power, leading to faster restoration times. Plus, AMI will enable the distribution system of the future, envisioned under New York's Reforming the Energy Vision. The technology will allow us to securely integrate—and communicate with—thousands of small distributed resources and give grid operators the information they need to maintain grid reliability.

In other words, advanced metering technology is the key that will unlock New York's energy future and would advance New York in the area of smart city technology.

Giving Customers More Information and Control

AMI is integral to providing products, technology, and incentives for customers to actively manage their energy use and take control of their monthly bill.

With a personalized online portal, accessible through smart phones and smart devices, customers will get detailed information on how they use energy. And if needed, they could choose to receive near real-time data for more proactive management of their energy needs. Customers could receive alerts about their usage throughout the month, before the billing period is complete. For someone struggling to pay their bill, this feature could prove to be useful in managing usage and costs.

In addition, new billing options could help ease the impact of a monthly energy bill. AMI paves a path for Con Edison to move toward “smart home” rate plans, which could bundle various services together to let a home automatically reduce energy consumption when the grid needs it most. Customers could benefit from participation rewards, and could take advantage of lower-priced electricity during off-peak hours.

Integrating Distributed Resources

AMI’s communications backbone will provide a secure link between technologies connected to the grid (such as rooftop solar) and the control room. This will allow system operators real-time visibility of grid conditions. This same functionality will enable customers to monitor the output of their distributed resources. Rather than the current one-way flow of energy, this two-way link will enable us to dispatch energy from these resources and take the actions necessary to maintain reliability. Distributed resources will continue to grow in popularity. AMI will provide a protected, secure communications link critical to maintaining cyber security and safety.

Enhancing Customer Service

AMI will significantly improve our ability to detect and respond to outages on our system. Today, we rely on customers to let us know when their power is out. With smart meters, we will know this immediately, allowing us to quickly dispatch crews and speed up restoration time. Think of AMI as another tool we will have to meet our customers’ expectations for immediate response in this digital age.

Smart meters will give us a clearer picture of system outages. We’ll know how many customers are affected and where outages are located. During storm restoration, we’ll use the information to target the right crews to the right areas and provide more accurate estimated restoration times. For instance, Pepco in Washington, D.C., restored power to 100,000 customers in 48 hours following Hurricane Sandy with the aid of AMI.

Moreover, smart meters can improve reliability by allowing us to manage the assets on the grid with distribution automation, or smart switches. In fact, last year, Chicago’s Com Ed avoided some 1.2 million outages with distribution automation.

By increasing the amount of information available to grid operators and planners, AMI will let Con Edison better control voltage on the electric grid. Imagine a more precise distribution system that reduces the power we consume. This will mean we purchase less power and reduce carbon emissions. These benefits would be passed on to customers.

For Con Edison, 80 percent of electric and 95 percent of gas meters in our territory are indoors. This means customers may receive estimated bills if we are unable to gain access to their home. AMI would essentially eliminate the need for in-home visits, helping us realize the goal of greater customer convenience. AMI will also improve bill accuracy and give Con Edison the ability to remotely transfer or activate electric service.

Looking Ahead

Looking ahead, as AMI is phased in over the coming years, it represents a new way to respond to our customers' sophisticated needs, modernize our energy infrastructure, and become a better manager of the grid. This technology is essential to becoming a utility of the future. Without it, we will lack a critical component to shape the new energy landscape.