

Energy Efficiency Trends

By LISA WOOD

Energy efficiency (EE) programs are a cost-effective way for customers to save energy and money, and for electric companies to reduce their environmental footprint. According to our forthcoming report, *Energy Efficiency Trends in the Electric Power Industry*, electric company customer-funded EE programs saved 169 terawatt-hours (TWh) of electricity in 2015, up from 155 TWh in 2014. In fact, electricity savings from EE programs grew more than 50 percent since 2011. The energy saved in 2015 equaled the amount of electricity it takes to power 17.5 million homes for one year. And these programs remain incredibly cost-effective; recent estimates show that they deliver energy savings at a price of about 2 cents per kilowatt-hour over the life of a program.

Energy savings from EE programs are an important contributor to the reduction of carbon dioxide (CO₂) emissions. In 2015, EE programs avoided 119 million metric tons of CO₂. In fact, the 169 TWh of electricity saved via EE programs in 2015 is more than four times the 39 TWh of

electricity generated by solar energy resources in 2015. EE programs are a vital part of our diverse energy mix.

Advances in EE

The EE success story is a microcosm of industry change—a combination of new, efficient, connected technologies merging with evolving customer attitudes and changing regulations. During the past several years, state regulatory decisions have changed significantly in support of customer-funded EE programs:

- In total, 33 states allow some type of fixed-cost recovery (either decoupling or lost revenue adjustment mechanisms).
- Additionally, 30 states have performance incentives in place that reward electric companies for meeting or surpassing energy savings targets.

Data analytics also have changed the EE value proposition. Electric companies, working with technology partners, are using data to develop personalized insights and interactions with residential customers, offering fast, simple, and effortless tools that balance choice,

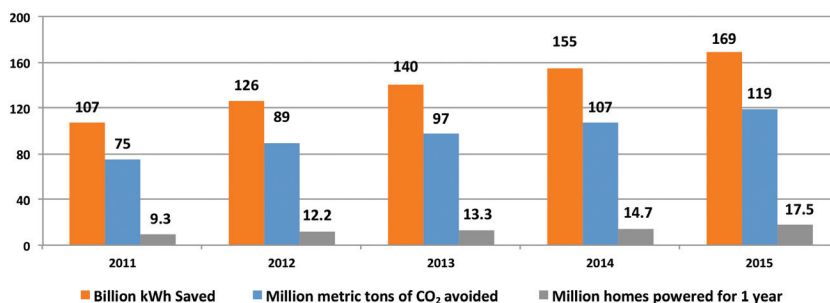
convenience, and cost to deliver value. Savvy commercial customers are turning data into action as they recognize the financial value of measuring and monitoring building performance and using that information to make smarter investments.

A New Era

EE programs are now an essential element in an ever-expanding set of electric company service offerings, ranging from high-efficiency lighting to smart thermostats to renewable energy options, storage, microgrids, and more—all to meet the growing expectations of customers who live in an on-demand, service-centric world. We are at the beginning of a new era of customer choice and control over energy use.

The key issue facing not just EE programs but the industry as a whole is whether electric companies, technology companies, and regulators can agree on a timely path forward to help customers unlock value through the integration and optimization of new energy services. If so, EE program savings will continue to grow over the next decade. **EP**

EE Savings and Carbon Dioxide Emissions Avoided



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The Institute for Electric Innovation focuses on advancing the adoption and application of new technologies that will strengthen and transform the energy grid. The Institute's members are investor-owned electric companies that represent about 70 percent of the U.S. electric power industry and are committed to an affordable, reliable, secure, and clean energy future.

