



HAVE ENERGY EFFICIENCY PROGRAMS GONE TOO FAR FOR UTILITIES?

Introduction

As the cost of creating new generation has become more expensive, and as it has also become more difficult to site new generation (especially coal and nuclear) as a result of federal and state hurdles, more and more utilities have invested a significant amount of time, money and expertise in helping reduce energy demand. The idea of course: If they can reduce demand, then the need to build new generation can also be reduced.

One of the most widespread and successful initiatives, which began to gain traction over 30 years ago, has been for utilities to set up energy efficiency programs, including consulting services and rebates for their residential, commercial and industrial customers.

These days, however, a few utilities are starting to take note of the fact that maybe things have gone too far. As they begin to experience declining loads and revenues from the impact of these energy efficiency programs, and as more and more customers opt for customer-sited generation (especially rooftop solar), utilities are legitimately questioning whether they should continue to invest resources to help customers become even more energy-efficient, the results of which would allow customers to reduce their utility bills even more, and thus also reduce loads and revenues for the utilities even more.

In a November 2017 press release, two Kentucky utilities (Louisville Gas and Electric Company and Kentucky Utilities Company) announced that, as a result of their energy efficiency programs, they have been able to offset roughly the same amount of energy that would equate to building a new power plant. "The programs were designed to help change customers' behavior in regards to using energy more wisely," said David Huff, director of energy efficiency and emerging technologies for the two utilities (which are owned by PPL Corporation). "Through their combined use of more energy-

efficient appliances, devices, and lighting in homes and businesses, customers have saved money and energy."

The utilities' programs included on-site home energy analyses, online home energy analyses, weatherization services, refrigerator and freezer recycling, business facility upgrade rebates, high-efficiency appliance rebates, and public education/advertising on energy efficiency.

The press release went on to add that, "Because of a variety of factors that include the abundance of more energy-efficient appliances, devices, and lighting in homes and businesses, some of the existing programs are no longer cost-effective." In addition, demand has continued to remain essentially flat for the utilities. With that in mind, the utilities are petitioning the Kentucky Public Service Commission to allow many of their energy efficiency programs to expire at the end of 2018.

"Today's average customer is much more energy-efficient than when we ramped up our program offerings years ago," said Huff. "Coupled with the fact that we do not need to offset additional capacity in the immediate future, the cost of continuing to offer some of our existing programs simply outweighs the benefits to our customers."

Another electric utility, the behemoth Knoxville-based Tennessee Valley Authority, announced in early December 2017 that, as of January 1, 2018, it would no longer be offering certain energy efficiency rebates to customers, including those for upgrades made to windows and doors. The rebates are part of TVA's "eScore" program. "As we do every year, we review the eScore program to make sure we are focusing on incentives that offer the maximum benefit," said Scott Brooks, a TVA spokesperson. "Windows and doors turned out to be something that most people would do regardless, so we are discontinuing that incentive."



Action is taking place further west, too. In May 2017, Tucson Electric Power stopped offering energy efficient rebates to commercial customers (including apartments) as a result of running out of money for the program. At that point, energy efficiency rebates were limited to residential customers, with funding continuing to be available “until the end of the year or until those funds run out,” said Joe Barrios, a spokesperson for the utility. In addition, the utility pared back the incentives that would be available for specific residential energy efficiency measures (e.g.: reducing “smart” thermostat rebates from \$50 to \$35, and heat pump rebates from \$1000 to \$850). The utility explained that it ran out of money for the program because a surcharge that it was allowed to charge customers in 2016 expired in 2017, leaving a shortfall of funding for the energy efficiency programs.

In addition, according to a December 2017 article in Arizona Capital Times, Arizona Public Service is petitioning the Arizona Corporation Commission to allow it to cut back on its energy efficiency programs.

But these measures may just be the start. According to Greentech Media, the White House is looking at ways to scrap or significantly reduce a number of energy efficiency programs, including Energy Star, the Low Income Home Energy Assistance Program, and the Weatherization Assistance Program, which would reduce or eliminate Federal dollars for these initiatives.

Finally, as utilities continue to assess their bottom lines and try to make sense of how to remain profitable as demand for energy continues to decrease, TVA announced in December 2017 that it is proposing a rate change that would penalize certain customers for excessively low energy usage. “Today, consumers can lower their bills through

energy efficiency and even make some of their own energy,” said Cass Larson, TVA’s vice president of pricing and contracts. “Power companies that don’t adapt and reinvent themselves won’t be able to ensure the safety, reliability and resilience consumers have come to expect.” TVA is currently discussing these options with the distribution utilities which it serves in its territory.

Part of what is behind TVA’s proposed rate change is the fact that TVA’s load and revenue have both decreased in recent years. “That’s the result predominantly of energy efficiency standards coming out of DOE,” said John Thomas, chief financial officer for TVA. “TVA does not need additional generation, because the losses are linked to load reduction.” He added, “As technology advances and allows homes and businesses to use less and less electricity, usage-based rates may not cover the costs of maintaining the grid for long. We need to recognize how important grid services are for those using new technology and ensure our pricing model protects the reliability and resilience that the grid offers.”

“Thomas’s comment that ‘usage-based rates may not cover the costs of maintaining the grid for long’ is important,” said Phil Carroll, P.E., vice president, Power Group, for Finley Engineering. “Historically, utilities have had low service availability charges, and covered costs through usage and demand charges. However, as demand and usage continue to decrease, it is increasingly difficult for utilities to cover their margins.” According to Carroll, utilities need to begin educating their consumers and addressing the cost to have a service connection. For example, consumers pay larger flat fees for cell phones, the internet, etc., and don’t think anything of it. “Electric service providers will need to move in that direction, too, if demand and usage trends continue on the current path,” he said.