



Louisville Gas & Electric

Louisville Gas & Electric adds a new dimension to demand response with smart thermostats

Background

E.On U.S., headquartered in Louisville, Kentucky, owns and operates Louisville Gas and Electric Company, a regulated utility that serves 318,000 natural gas and 390,000 electric customers in Louisville and 16 surrounding counties, and Kentucky Utilities Company, a regulated electric utility in Lexington that serves 518,000 customers in 77 Kentucky counties and five counties in Virginia. Demand response has long been an important element of E.On's peak portfolio. With over 95,000 direct load control switches controlling over 110,000 central air conditioners, pool pumps, and electric water heaters across its service territory, E.On operates one of the largest and most successful DR programs in the country.

A visit to E.On's website echoes its commitment to growing demand response as a key asset: front and center is a photo of the company's newly offered demand response enabled smart thermostat provided by Comverge. A new participant now has a choice between a switch with a \$20/year incentive or a free smart thermostat with no incentive.

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A New Dimension

When E.On began offering the smart thermostat option, they expected a gradual adoption rate – starting in small numbers at first which would give the utility time to train installers and continue field testing the technology through the installation process.

They opted for a limited marketing strategy: they posted the offer on the website and contributed an article to one local newspaper. What happened next was a surprise to everyone involved: within two and a half weeks of first posting the information, over 1600 participants had signed up – with no incentive.

Today, the program is continuing to grow with over 450 new installations every week and E.On has had only one request for removal. “The response we received for the thermostat was so great that we actually had to remove the sign-up page from our website,” said Greg Fergason, Manger of Load Control at E.On. “We simply weren’t going to be able to keep up with that rate of adoption.”

This surge in consumer interest and therefore ultimate program penetration shows that new customer segments who may not be interested in joining a switch based DR program may be reached through the deployment of new “consumer-friendly” DR technologies like smart thermostats.

Coupled with its additional functionalities such as AMI integration and advanced pricing capabilities, this clearly shows that smart thermostats are here to stay.

From the participant’s perspective, the thermostat is a way to save energy and gain convenience. According to a recent study by the Department of Energy, an average consumer is likely to save up to 15% on their monthly utility bill by pre-programming daily schedules through a programmable thermostat. The smart thermostat can make this process even easier by enabling consumers to program their thermostat online.

While smart thermostats can require more thorough customer education and more time per installation as it needs to be scheduled, the thermostat has proven benefits for E.On as well:

- Net energy savings in addition to demand savings
- Lower life-cycle costs – no recurring incentives
- Easier to market to consumers
- Greater customer satisfaction
- Less HVAC contractor “confusion” or tampering
- Migration to advanced pricing
- Potential to solve permitting issues

“Offering the smart thermostat has added a new dimension to our DR programs,” said Fergason. “We expect to see more and more participants opting for a thermostat, which will reduce our costs – both in short term marketing and by eliminating long term recurring incentive payments – while at the same time providing added value to our customers. Deploying this technology is a win-win for everyone involved.”

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