

Cadmus Group Data Shows Utilities Need to Re-Think Residential Energy Efficiency Programs

Lower Delivery Costs, Higher Participation Needed

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In its [August 2013](#) report entitled “Residential Efficiency Crossroads: Opportunities For The Future,” [Cadmus Group](#) presented utilities and the broader energy efficiency community with a much-needed wake-up call: utility-driven residential energy-efficiency programs are at a crossroads and what worked in the past is likely to fall short in the future. Cadmus’ exhaustively researched, data-driven report is a must-read for all of us who work to engage customers in lowering energy costs and consumption.

As a developer of lower-cost customer-engagement initiatives for utilities, on both the residential and commercial side, [Kilojolts Consulting Group](#) has a keen interest in Cadmus’ findings. We were particularly struck by the report’s detailed cost-benefit analysis and the conclusion that utility efficiency program planners are struggling to achieve expected savings from residential initiatives due to the escalating cost of credited nega-watt-hours (NWH) and the difficulty in attaining sustainable gains. The price of customer engagement and taking credit for energy efficiency keeps going up, necessitating, as Cadmus notes, “new models that emphasize low delivery costs with high participation and conversion rates.”

Why Utility EEP’s Fall Short

The Cadmus report suggests that Energy Efficiency Programs (EEP) need re-thinking and re-design. Here’s my take on why:

- **Lower Fuel Costs** Natural gas pricing is driving electricity and heating costs down to inflation-adjusted historic lows. And as logic has it, the less expensive the energy you’re saving, the more difficult it is to garner consumer attention to participate in conservation efforts.
- **Easy Stuff is Done** The cost of capturing sustained NWH’s through prescriptive EEP measures has reached critical mass as the easy-to-reach customers have done all of the basic stuff. In fact, they’ve accepted the concept that buying reasonably priced energy-efficient appliances and gadgets is good practice. Getting this group of adopters to do deeper energy efficiency projects takes acceptance of higher initial costs and longer ROI’s.
- **External Factors** Then there are the excuses as to why traditional EEP’s are not working as well as in the past:
 - Lofty government-mandated conservation goals
 - Economic downturn
 - Lack of discretionary spending power
 - Hard-to reach-late adopter customers
 - Strained customer relationships

According to the study, utilities have redoubled their efforts to design EEP’s to capture the deeper energy savings they need to meet or exceed state-mandated energy savings. To mine this savings, utilities are spending millions of dollars of energy-efficiency fees on marketing to “energy-efficiency-agnostic” customers, but they’re just not achieving the required success rates they envisioned.

Strained Utility-Customer Relationships

[FierceEnergy’s](#) Barbara Vergetis Lundin has reported on the troubled relationship between utilities and their customers through a series of spot-on articles (“Unaware customers are unsatisfied customers,” July 25, 2013, “Consumer trust in utilities lowest since 2009,” July 3, 2013, “Consumers say utilities can earn back their trust,” July 5, 2013). In my opinion, a number of issues cloud the customer-utility relationship and they have a negative impact on efficacy of EEP’s:

Trust Deficiency

Let’s face it...engaging customers to conserve the product that’s your perceived primary revenue stream is still somewhat baffling to many customers. And the major storms of the past few years have frayed the nerves of many customers as the restoration of their power service lingered on for days and even weeks beyond expectations.

Marketing Deficiency

Too many programs. Too many logos. Too many competing offerings. Communication overload. Federal, state, local, and utility-sponsored programs are marketed to consumers, often at the same time, often with similar offerings. Pity the poor homeowner who tries to figure out what to do and with whom.

Behavioral Energy Efficiency: Diversify the Tools in the Toolbox

At Kilojolts, we think utilities can bridge the chasm of trust, motivate customers, and achieve the goals of EEP's, by adding a variety of "tools" in their customer engagement toolbox, including behavioral energy efficiency as accomplished using our [SEE The Light Energy Toolkits](#). Think of a Leatherman Pocket Tool, containing:

- A way to directly engage with the customer
- Energy conservation products that customers can install (and prove that energy conservation has no impact on quality of life, just on the cost of living)
- A device to measure wasted energy consumption
- References to online resources and videos on how to use the tools and programs
- Directions on how to use everything and how to save even more (Utility EEP program literature indicating "why we're in the energy conservation business and we're here to help")

Behavior: In the Cloud and Down to Earth

In its August 2013 Report, Cadmus references a whitepaper that they co-authored in May 2013 on the state of Behavioral Energy Efficiency Programs (BEEP).¹ This Report concluded that utilities probably need a variety of tools to influence behavioral change and engage with their customers, both "cloud-based" solutions and more down-to-earth, tangible products. The May Report also included a lengthy description of 'Company X's' competitive energy consumption reporting software product as a way to instill consumer behaviors.

But when the results of this behavioral initiative are analyzed beyond the purported > 2 Terawatts of avoided consumption, the data is somewhat inconsistent with what I call success. Navigant Consulting's February 2011 report on SMUD's (Sacramento Municipal Utility District) pilot implementation of "Company X's" approach revealed an average 2.3 percent savings over 12 months. Extrapolating that information in terms that are easier to explain, the average US household uses \$2,200 of energy a year. At twelve and a half cents a kilowatt-hour (kWh), that's 17,600 kWh per year. So a 2.3 percent savings is 405 kWh per household, per year or \$50.60 of cost avoidance per year. Is that significant? Is this the "deeper, more meaningful savings" that utilities are striving for? Does this high-cost BEEP generate enough savings to hold the interest of customers beyond one or two years? My humble opinion on all three questions is "probably not!"

Conclusion

As Cadmus concludes in its August 2013 Report, "In the evolving energy-efficiency environment, there is no single solution." To achieve higher customer adoption of EEP's, utilities need to rely on multiple tools. Cloud-based behavioral initiatives alone are insufficient to bridge the chasm of trust. To successfully engage with customers and attain the holy grail of sustainable, deeper savings, utilities need to integrate high-touch educational and low-tech tool elements within their engagement/EEP campaigns. Behavioral Energy Efficiency Programs done right can convince the hard-to-reach customer that energy conservation is not a scam and that it's OK to trust their utility company again.

Helpful Links:

<http://assets.fiercemarkets.com/public/sites/energy/reports/EECrossroadsDownloadPDF.pdf>

http://opower.com/uploads/library/file/6/opower_smud_yr2_eval_report_-_final-1.pdf

<http://www.energytoolkits.com>

<http://www.homeenergytoolkits.com>

<http://www.kilojolts.com/>

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¹ Ignelzi, Peters, Dethman, Randazzo, Dougherty and Lutzenhiser, Paving the Way for a Richer Mix of Residential Behavior Programs May 31, 2013.