

Strategies



Monthly Member Newsletter

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Letter from the AESP Chair

Here's Looking At You, EE Industry

This month AESP released its annual 2014 State of the Industry report. This is the fifth year that AESP has released this report and the findings leave me encouraged and hopeful about the future of our industry. For me, and I am sure for most of you, one of the most important findings is that the energy efficiency and demand response industry continues to be a growing field offering new opportunities and strategies. In fact 66.2% of our members increased staffing in 2013 and nearly the same number expect to add staff into 2014. I look forward to meeting some of these new hires and industry entrants at a future AESP conference.



Sara Van de Grift
AESP Chair

C&I programs continue to be identified as the area with greatest potential with small C&I edging out large C&I this year. Newer opportunities like the impacts of behavioral change programs on the commercial sector are causing excitement, as is the potential for accessing the treasure trove of data available to better target, work with and engage customers.

What might be the most intriguing finding for me though, is the idea that for energy efficiency as an industry to continue to grow and thrive, we need to rely on creative ideas that both capitalize on emerging trends and help us adapt to the constantly changing market. This notion of creativity strikes a deep chord for me; I find a creative environment as one of the most satisfying places to occupy. That said, we as an industry can often be quite risk averse. Navigating away from our natural state, to one where we are willing to pilot, test and take a risk on new models and approaches will test us in new ways but will also make us better.

I look forward to your feedback on the report and to seeing the materialization of these new creative ideas as we move forward in 2014.

The AESP 2014 State of the Industry Report can be downloaded by logging into your [AESP member portal](#).

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Industry News

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- "Are HVAC Contractors Set for 2015 Efficiency Standards? Survey Says No"
- "Energy Efficient Hospitals: Harnessing the Power of Sustainability"

APRIL 2014



Upcoming Events

Chapter Events

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April 15 — Chapter Meeting

Northwest Chapter
April 16 — Happy Hour/Nest Presentation

Wisconsin Chapter
April 17 — Cost/Benefit Tests Presentation
May 27 — Happy Hour
June 24 — Epic Tour

Mid-Atlantic Chapter
April 24 — Delaware's Sustainable Energy Utility Model

Chicago Chapter
May 6 — Webinar: Intro to EE and AESP
May 8 — Meeting
August 13 — Rooftop Party

Brown Bags

April 24
Award-Winning Marketing Programs — What Does It Take?

June 12
Integrating Demand Response and

"Policymakers Help Utilities' Energy Efficiency Efforts"
"Majority of Voters Support Energy Efficiency Policies and Products"
"Farm Bill Funding for Implementing On-Farm Energy Conservation"

Featured Articles

Industrial Continuous Improvement — Lessons Learned and Applied Four Lessons for Engaging Low-Income Households

AESP News

News Releases and Announcements

Industry News

The following executive summaries of current news items were written for Strategies after being compiled from various news sources.

Next-Gen Data Center Efficiency

FierceEnergy (03/04/14) Lundin, Barbara Vergetis

A rising number of data-intensive services are compelling data centers to turn to more powerful and robust cooling solutions. High density cooling modules are needed because existing high density server racks cannot be sufficiently cooled using legacy technologies. At the same time, low density racks continue to be in use because not all applications require high performance computing, creating a need for a broad range of cooling solutions in the market, according to Frost & Sullivan. Cooling systems providers, however, continue to face technology resistance from data center operators and need to curb concerns about servicing unfamiliar cooling solutions and the potential downtime. Cooling solutions are regarded as untested unless they have had at least five years of demonstrated reliability in the data center market, according to Frost & Sullivan. This prompts many organizations to deploy systems that incur higher energy costs instead of taking the risk with newer systems. "Nonetheless, operational efficiency is gaining momentum as a key driver for cooling solutions, particularly at the hyper-scale level for high-tech verticals," observes Frost & Sullivan analyst Pramod Dibble. "As new technologies and practices demonstrate operational expenditure savings and environmental benefits, other verticals will follow suit."

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Negawatt Hour

Economist (03/01/14)

The International Energy Agency (IEA) has conducted the first global study of power saved through conservation or efficiency measures, which found that energy efficiency investment is on the rise: \$300 billion was invested in 2011 by companies and governments in 11 nations. That figure is equal to total investment in electricity generation from oil, gas, and coal, but smaller than investment in renewable electricity plus renewable-energy subsidies. Still, energy efficiency investment pays for itself and produces less carbon dioxide emissions than all the investment on renewables. Consequently, avoided energy consumption is now equivalent to 66 percent of yearly consumption, which almost equals the collective worldwide output of oil, gas, and coal. Although high oil prices stimulate energy conservation efforts by companies, IEA's Robert Tromop says regulation and technological innovation are just as important. For example, China is making its vehicle-emissions standards stricter, and spiking sales of fuel-efficient cars. The country also mandates that all new coal-fired plants with a capacity of more than 600 MW be "supercritical" facilities that are about 33 percent more efficient than traditional designs. The IEA's examination of the impact of efficiency targets on Japanese consumer goods revealed that the benefits—in the form of lower running costs and greater innovation—offset the additional hardships.

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Utility Companies Create Excitement Around Energy Conservation

Intelligent Utility (03/14) Davis, Kathleen Wolf; Recknagel, Todd

Utilities are essential in achieving consumers' uptake of energy efficient practices. To this end, Puget Sound Energy (PSE) in Washington state launched a contest to educate customers about the benefits of LED lighting. The LED Lighting Makeover Takeover contest allowed PSE customers to win home lighting makeovers of up to \$1,000 in LED bulbs. "Customers learned

Renewables

July 17

[Brain Fire — Innovative Marketing Ideas From Outside Our Industry](#)

If you would like to organize a Brown Bag, please contact Kisha Gresham at kisha@aesp.org.

AESP Training Courses

[Leadership Training for Exceptional Team Performance](#)

Baltimore, May 14-15, 2014

[Strategic Marketing of your Energy Efficiency Programs](#)

Baltimore, May 14-15, 2014

If you would like to schedule an onsite training please contact Suzanne Jones at (480) 704-5900 or suzanne@aesp.org. For more information about the AESP Institute, [click here](#).

Conferences

[Spring Conference](#)

[Marketing & Implementation: Finding New Pathways to Reach Program Goals](#)

Baltimore

May 12-14, 2014

[Summer Conference](#)

[Evaluators & Implementers: Merging on the Energy Efficiency Highway](#)

San Francisco

August 4-6, 2014

[25th National Conference](#)

Orlando

February 9-12, 2015

WELCOME & THANK YOU

to our New and Renewing Members!

New Members

Ashley Henderson, Active Communications International
Bill Masi, MaxLite
Bryan Anderson, Pulse Energy
Bryant Hains, GDS Associates
Chris Miller, Match Marketing Group
David Richard, DNV GL
Ed Kriz, Nicor Gas
Jamie Chesler, PG&E
Jane Lano, The United Illuminating Co
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Josh Duckwall, GDS Associates
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Ken Yeager, AFC First Financial Corp
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Laura Hicks, Pulse Energy
Lee Ann Head, Shelton Group
Lisa Haislip, TVA
Lori Szolwinski, Franklin Energy Services

what types of lighting are best suited for each space in their home, received efficient lighting products, and ultimately cut down on their energy costs," said Joel Smith, program manager at PSE. "The video series allowed us to show customers that efficient lighting can improve the way they use their living spaces." As LED prices have become more competitive, homeowners no longer need to invest as much in the initial cost. Many LEDs can be purchased for under \$10 before any utility incentives. PSE's LED Lighting Makeover Takeover contest enabled the utility to see an average displaced wattage of 85 percent for lighting in homes that won the prize. PSE's residential lighting program has resulted in the installation of an additional 1.5 million LEDs. Meanwhile, 90 percent of the power generated and distributed by six electric public utility districts (PUDs) in Oregon in the Oregon People's Utility District Association consists of green and renewable power. Oregon's PUDs continually focus on conservation and energy efficiency measures.

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LED Light Bulb Prices Projected to Match CFLs by 2020

Columbus Business First (03/19/14) Knox, Tom

Light-emitting diode (LED) bulbs and compact fluorescent lamp (CFL) bulbs will continue to reduce residential power usage because they are more energy efficient. The purchase price tends to be higher for these bulbs compared with incandescent bulbs, but "significant savings are achieved over the life of the bulb," says the Energy Information Administration (EIA). The EIA estimates that by 2020, prices should be about even for the bulbs. By then, however, energy standards will likely be too high for incandescent bulbs to meet, so they will be even less of an option than today. Starting on Jan. 1, the United States will no longer manufacture 40-watt and 60-watt incandescent light bulbs, which do not adhere to energy efficiency standards passed by Congress in 2007. Congress has attempted to stop that ban, which spurred some consumers to stockpile them. CFL bulbs are largely replacing incandescent lights at present, but the EIA believes that LEDs will be used for the long-term in the future. The agency also forecasts that by 2020, LEDs will generate more than 150 lumens per watt, compared to a typical 60-watt incandescent output today of 16 lumens per watt. LEDs also can last 30 times as long.

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Minnesota Takes Step to Link Energy Loans With Utility Bill

Midwest Energy News (03/19/14) Haugen, Dan

State lawmakers in Minnesota have proposed legislation to encourage on-bill repayment of energy loans for such things as insulation, energy efficient appliances, and solar panels. The legislation is advancing in the Minnesota Legislature with bipartisan support, and the backing of utilities. It calls for banks that lend the money to be responsible for unpaid loans rather than utilities' shareholders or ratepayers. The proposed measure also asserts that a customer who moves from a property is responsible for paying off the loan, not the next owner or tenant. However, utilities would not be allowed to shut off service due to an unpaid loan. Sheldon Strom, founder and president of the Center for Energy and the Environment, recently testified in support of the legislation, noting that the state's experience with on-bill financing dates back to the 1980s, when Minnegasco (now part of CenterPoint Energy) launched a program with the City of Minneapolis. At that time, high natural gas prices and less efficient housing meant that even a residential insulation project would allow a customer's energy savings to exceed their monthly loan payments. But with today's lower energy prices and improved building standards, residential customers who finance clean energy and energy efficiency projects through an on-bill repayment program will likely see their bill increase until the loan is paid off, Strom said. At least 23 states have deployed or are about to deploy on-bill financing programs, including Illinois and Michigan.

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States Brace for Utilities and Solar Advocates to Clash

Stateline (02/19/2014) Prah, Pamela M.

Growth in solar energy has prompted many states to prepare for further conflict between solar advocates and utility companies. This is occurring not only in sunny states like California and Hawaii, but also in places like Kansas and North Carolina. Solar installations were up 76 percent in 2012 from 2011, according to the most recent data available from the Solar Energy Industries Association. Utilities are most concerned with the system of net metering, which involves rolling credits for excess electricity generated to future utility bills, which is encouraged in 43 states and the District of Columbia. The Coalition for Solar Rights called net metering "one of the most important state policies for empowering Americans to generate their own power from the sun," but utilities say that many users do not pay their fair share. Customers with solar systems are usually credited at the full retail electricity rate, which

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AESP is a member-based association dedicated to improving the delivery and implementation of energy efficiency, energy management and distributed renewable resources. AESP provides professional development programs, a network of energy practitioners, and promotes the transfer of knowledge and experience.

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includes not only the cost of the power, but also the costs of infrastructure such as wires and meters. Some utilities are calling for state regulators to charge solar customers a fee or to reduce the rollover credits. Another source of conflict is capping the number of solar installations that can qualify for reimbursements, with solar advocates asking for an increase to the caps.

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Are HVAC Contractors Set for 2015 Efficiency Standards? Survey Says No Heating — Piping — Air Conditioning Engineering (03/14) Arnold, Scott

A survey by Emerson Climate Technologies Inc. finds that 74 percent of contractors are unaware of 2015 regional standards for residential unitary air-conditioning and heat-pump systems, and nearly 80 percent are unaware of 2015 part-load efficiency requirements for light-commercial split, package, and rooftop systems. Moreover, 84 percent are unaware of 2015 chiller standards. The survey of 472 contractors was conducted via email in late 2013, and reveals that most respondents are not adequately informed of how the upcoming standards would affect their businesses. Only 12 percent of contractors had started training their technicians or thinking about an inventory plan. On the commercial side, just 8 percent of contractors had trained their service teams on the new rooftop or chiller standards, according to the survey. Only 3 percent had talked to an original equipment manufacturer about the changes, and just 4 percent had started to develop a marketing plan to address the regulatory changes with their customers. "We want to help the industry get prepared for these changes, and we will be providing additional information on our new website, AC & Heating Connect," says Frank Landwehr, vice president of air-conditioning marketing for Emerson Climate Technologies. "We will continue to support the industry's readiness with educational materials, technology updates, and insights from additional surveys."

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Energy Efficient Hospitals: Harnessing the Power of Sustainability Trustee (03/14) Butcher, Lola

Hospitals are leveraging ways to lower their energy costs through low-expense, high-impact solutions. "Most health systems can save 20 to 30 percent of their energy costs by becoming more energy efficient, compared [with that of] their benchmark institutions," notes Gundersen Health System's Jeff Rich. The board of PeaceHealth, a nine-hospital system serving Washington, Oregon, and Alaska, prioritized sustainability when it adopted a three-year strategic energy management plan (SEMP) in 2007 that helps to speed up decisions that support energy conservation, according to PeaceHealth's Gary Hall. "We typically prioritize the investment for anything that has a 20 percent or higher return on investment," he points out. "And if we have something that is a 50 percent or higher return on investment, that falls into the immediate-action category." An energy management plan entails benchmarking a health system's current energy use and practices against other healthcare facilities, establishing yearly energy efficiency objectives, and identifying projects needed to meet those goals, says Northwest Energy Efficiency Alliance consultant Cynthia Putnam. Meanwhile, the energy efficiency efforts of Detroit's Beaumont Health System are driven by an ongoing change in culture that makes sustainability a systemwide value. Those projects included replacing the lights in Beaumont's parking lots and garages with fixtures that employ low-energy, LED lights. The new lights save almost \$300,000 annually in power and maintenance costs and will pay for their capital outlay in three years. Investment in renewable energy is another strategy that hospitals are undertaking. Gundersen, for instance, is a joint venture partner in two wind turbine projects, and it pipes landfill gas to operate an engine that fulfills all power needs on a 350,000-square-foot outpatient campus.

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Energy Efficiency Unmasked Public Utilities Fortnightly (02/14) Stevie, Richard G.; Smith, Raiford L.

Utility resources tend to become scarce during peak demand times, and current marginal costs escalate above current average cost or embedded average costs. Growth in peak demand is a major driver for utilities to build new capacity. To enable utilities to transition to a system designed to be economically efficient, policymakers have generally used three types of incentive-based energy efficiency (EE) regulatory mechanisms: shared savings, percent of program costs, and percent of avoided costs. Under the shared-savings approach, the utility's financial incentive is based on a percent of the difference between the present value of the avoided costs associated with the implementation of an EE program and the present value of the EE program's costs. Meanwhile, the percent-of-program-cost regulatory mechanism provides the utility with a financial incentive based on a set percentage of EE program costs. Lastly, the percent-of-avoided-cost regulatory mechanism is different because it does not

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provide explicit recovery of EE program costs. Under this approach, revenues are computed as a percent of the present value of the avoided cost, but revenues are then reduced by the program costs in arriving at any incentive. Utilities will need to build assets to a level that is above the economically efficient level, as long as only cost-effective programs are implemented and rates are set on embedded costs. With appropriate regulatory treatment, utilities will pursue cost-effective EE in order to reduce demand toward the economically efficient quantity.

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Majority of Voters Support Energy Efficiency Policies and Products

EcoBuilding Pulse (03/10/14) Weeks, Katie

Using energy efficient products is a top priority for most voters, according to a new National Electrical Manufacturers Association and National Association of Manufacturers study. Nearly all of the voters surveyed (90 percent) support using energy efficient products, and the distribution was fairly equal over party lines with 86 percent of Republicans, 88 percent of Independents, and 99 percent of Democrats supporting the use of energy efficient products. The majority of the 1,000 voters surveyed would support candidates that support energy efficiency policies (67 percent); policies for investing taxpayers' money in energy-efficiency technologies, innovations, and programs that save consumers money (74 percent); and investments in energy efficiency that do not raise taxes, add to the federal deficit, or include government mandates on consumers (69 percent). The survey could spur Congress to act, since 66 percent of respondents said they currently disapprove of how Congress is addressing energy issues, and 67 percent said they were more likely to vote for a candidate that supports energy efficiency policies.

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Farm Bill Funding for Implementing On-Farm Energy Conservation

CattleNetwork.com (02/26/14) Gould, Charles; Go, Al

The new Farm Bill offers more money to assist farmers and ranchers in implementing energy conservation measures than the previous Farm Bill. The Rural Energy for America Program (REAP) will receive a \$250 million mandatory funding expansion, with \$50 million designated for each year of the five-year bill. Feasibility studies are no longer eligible project costs, but REAP can still be used to fund renewable energy and energy efficiency projects. The Energy Efficiency and Conservation Loan Program is a new program that will provide low-interest loans to rural electric coops that will in turn lend it to cooperative members to implement energy conservation measures. The program will receive \$250 million in year one. The focus of the Value-Added Producer Grant, which is funded at \$63 million, has been expanded to include renewable energy and energy efficiency measures. The Environmental Quality Incentives Program received funding for energy audits and efficiency upgrades. Also, the Rural Energy Savings Program is authorized at \$75 million per year with discretionary funding.

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Featured Articles

Industrial Continuous Improvement — Lessons Learned and Applied

by Amy Glapinski



Continuous improvement or Energy Management Systems (EnMS) programs are rapidly becoming more popular as deep energy savings become more challenging to find. The implementation of these types of programs has prompted discussions on lessons learned and revealed a need to establish Continuous Improvement Program best practices.

Consumers Energy has been implementing an Industrial Continuous Improvement Pilot Program for the last three years. This experience

has revealed that the primary barrier was in encouraging customers to commit the appropriate level of investment and resources to this initiative. Three valuable lessons have emerged from this pilot program to help overcome this barrier.

1. Know and understand your customers
2. Offer service options — not a one-size-fits-all approach
3. Understand the savings potential

These three best practices will aid any program in recruiting, raising participation levels, identifying savings potential by market segment and/or technology, and ultimately help to achieve deeper energy savings, as described below.

Know and Understand Your Customers

Consumers Energy's service territory includes a large industrial customer segment, so naturally this segment was the perfect target market to pilot this program concept. By and large, the industrial market segment is aware of the concept of Continuous Improvement and Management Systems through the widespread adoption of other standards for quality and environmental management such as ISO 90001 and ISO 14001. Conversely, while these other standards may have already been adopted by a manufacturer, there is typically a long decision cycle involved for determining which particular standard represents the best practice for that company.

Because of the extended nature of this decision-making process, it is vital to have the key stakeholders involved at the very introduction of the program. For this pilot, getting to the decision makers was a key hurdle. Leveraging quality relationships the Customer Account Managers have with the customer, however, can help strategically sell this program concept when the right players are at the table.

Understanding the customer's level of commitment to energy efficiency is also important. Success with a more technically challenging program like Industrial Continuous Improvement was typically seen with customers who had already engaged somewhat in energy efficiency within their facility. Lastly, understanding the customer's appropriate investment and resource commitment are crucial for the adoption of an EnMS program.

Offer Service Options — Not a One-Size-Fits-All Approach

The first year of this pilot offered customers one option and one approach to participate. They could only enroll in the Industrial Continuous Improvement Pilot Program by committing to pursue ISO 50001 Certification. This was immediately seen as a barrier to this customer segment. Customers were interested in a more tailored approach to their facility and wanted to have options to make an informed decision on what approach was best for their company.

During the second program year, the pilot introduced Superior Energy Performance (SEP). Similar to the ISO 5001 standard, but with more widespread adoption in Europe, this gave the customer another solution to implementing an EnMS standard, without the rigors of ISO certification. This alternative appealed most to customers who didn't have the resource availability to commit to certification.

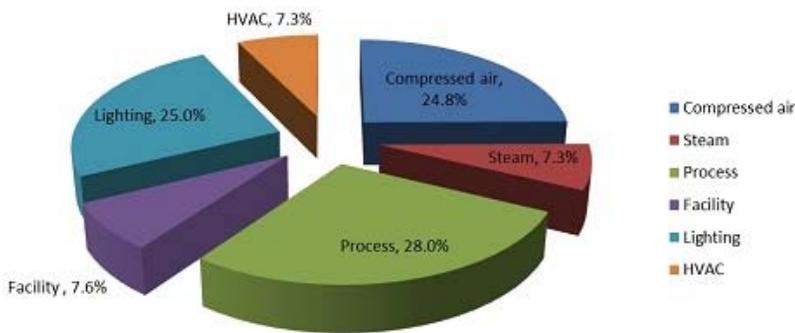
Lastly, The ENERGY STAR® Challenge for Industry, offering an alternative path to ISO 50001 and SEP was introduced during the second year of the pilot program. This option provided customers an opportunity to engage with energy efficiency but with little to no financial investment, thanks to ENERGY STAR's readily available toolkit and other resources available to the public. Customers responded very positively to this addition and recognized that each path offered benefits to their company and that they could make the appropriate resource and financial commitment for their company.

Understand the Savings Potential

Piloting program concepts like Continuous Improvement and Energy Management Systems is a highly strategic way to determine the savings potential for a particular market segment and/or a particular set of measures. This information can be very useful when examining the larger energy efficiency market potential for a given territory.

The Consumers Energy Industrial Continuous Improvement Pilot Program studied a sample of eight customers who had participated in the program and received a comprehensive energy audit identifying Facility Improvement Measures (FIMs) and/or Energy Conservation Measures (ECMs). These recommendations included both capital investment projects as well as low/no cost savings opportunities. From these comprehensive energy audit reports, the savings potential by technology segment are illustrated in Figure 1.

Figure 1 — Energy Audit Recommendations by Category



Source:

Consumers Energy

From this data, the program was able to assess the market potential of current program offerings and determine whether the current offering would effectively capture those savings, or whether another approach was needed.

This also helped to strategically target energy savings based on technology. Customers pursuing the Industrial Continuous Improvement Pilot Program could also be enrolled in the Compressed Air program and begin earning incentives for compressed air energy efficiency upgrades based upon recommendations provided in the audit. In this instance, because the industrial segment was the target market, we found that process improvements attributed to almost 30% of the segment's energy savings potential. A program guideline, incorporated into the program application, was developed to establish a key set of parameters that the customer must follow, to pursue a custom process improvement energy efficiency project. These parameters included setting baselines, identifying standard calculations and assumptions, and assigning correction factors to the post project data.

The combination of these lessons learned will foster further best practices in Continuous Improvement program design in order to establish the appropriate resource requirements and identify financial options for utility customers that will ensure their continuous engagement in energy efficiency

Amy Glapinski is the Commercial & Industrial Pilot & Specialty Programs Manager at Consumers Energy.

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Four Lessons for Engaging Low-Income Households

by Serj Berelson and Rachel Kane

The Opportunity for Low-Income Energy Efficiency

Engaging low-income households in energy efficiency programs is tough and getting tougher. Enrollment rates are low, with Low Income Home Energy Assistance (LIHEAP) programs reaching fewer than 25% of eligible households, and funds have shrunk by 35% since 2010.



Rachel Kane



Serj Berelson

Yet large numbers of low-income families need relief — over 10.4 million American families have income below 200% of the federal poverty threshold. In this environment, it is critical to maximize the value of every available dollar. How can we optimize low-income efficiency programs to maximize the benefits for families and utilities alike?

Doing so requires having a deep understanding of low-income households and their needs. Drawing on Opower's experience and the experiences of others in the field, we have developed four lessons for engaging low-income utility customers.

Lesson #1: Low-Income Households Are Not Uniform

Low-income households exhibit diverse housing characteristics and demographics, suggesting that tailored, targeted outreach is more effective than one-size-fits-all approaches.

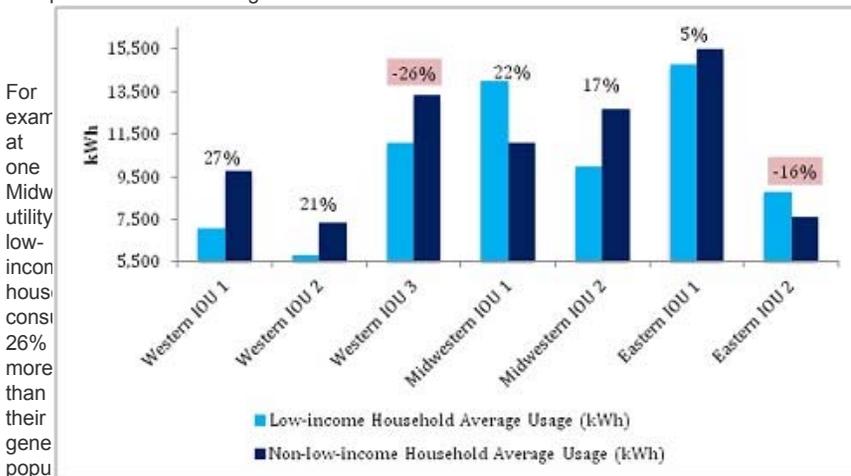
There is surprising diversity in the number of occupants per home and housing type across income groups, utilities, and states, as studies by Kathleen Gaffney and others have shown.ⁱ Data from eight Opower utility programs reveal that low-income households were actually more likely to be living in single-family homes than higher-income households for 37% of utilities. Similarly, home ownership levels are inconsistent. In two utilities studied, low-income customers were actually more likely to own their home — and ownership rates varied widely from 30% to 86%.

When coupled with data on geography and language, it is clear that there is no typical low income customer, just as there is no typical utility customer. Low income households may be urban, suburban, or rural; families might be large or small; and their language of choice might be English, Spanish, Cantonese or Tagalog.

Lesson #2: Low-Income Does Not Always Imply Low Consumption

Low income consumption habits are remarkably diverse. One might incorrectly assume that low-income households are typically smaller than other households, and therefore use less energy. Counterintuitively, data from seven programs indicate low income populations have varying consumption patterns, sometimes using more energy, sometimes less than their higher income counterparts.

Comparison of annual usage for low-income and non-low-income households



In fact, low income households are less likely to be insulated from extreme temperatures, and more likely to use energy-hogging devices like window A/C and plug-in heaters.ⁱⁱ

Lesson #3: Low-Income Customers Can Engage at Impactful Levels

Participation levels in low-income energy efficiency programs are low — an ACEEE search for exemplary low-income programs in 2005 yielded 24 programs with an average annual participation rate of 2.6%, and a median participation rate of 1%.ⁱⁱⁱ

One explanation for low levels of participation is a lack of spare time. Learning about available programs and enrolling takes time and resources that low-income households often do not have.

The good news is that proactive communication, and programs in which customers are auto-enrolled can overcome this engagement barrier. For example, the National Consumer Law Center found auto-enroll arrearage management programs delivered far greater benefits to low-income utility customers than opt-in programs.^{iv}

We have seen supporting results from Opower programs. Low income households in Home Energy Report programs with five utilities saved energy commensurate with non-low-income customers — indicating equivalent levels of engagement.

Home Energy Report program savings are commensurate for low income and general population customers.

very small (i.e. a single resident) or very large (i.e., more than 5 residents) than other households. Gaffney, Kathleen, KEMA Inc., ACEEE Summer Building Efficiency Study, 2006, "Assessing the Needs of California's Low-Income Population", p. 7-50. Available at http://aceee.org/files/proceedings/2006/data/papers/SS06_Panel7_Paper05.pdf.

ⁱⁱOpower National Survey of Consumer Energy Use and Attitudes, Oct 2010.

ⁱⁱⁱKushler, Marin; York, Dan; Witte, Patty, ACEEE, Sept 2005, "Meeting Essential Needs: The Results of a National Search for Exemplary Utility-Funded Low-Income Energy Efficiency Programs." Available at <http://www.aceee.org/sites/default/files/publications/researchreports/U053.pdf>.

^{iv}National Consumer Law Center, Sept 2013, "Helping Low-Income Utility Customers Manage Overdue Bills through Arrearage Management Programs (AMP)" p. 24-25. Available at http://www.nclc.org/images/pdf/energy_utility_telecom/consumer_protection_and_regulatory_issues/amp_report_final_sept13.pdf.

^vThis study of NV Energy's found that while low-income customers were generally less aware of efficiency programs compared to general populations, once aware they were more likely to participate. Tetra Tech, Inc., February 2012, "Final Report for the Research and Analysis of Energy Usage for NV Energy Low-income Customers", p. 4-37. Available at: http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2005_THRU_PRESENT/2009-6/36086.pdf

^{vi}Kushler, Marin; York, Dan; Witte, Patty, ACEEE, Sept 2005, "Meeting Essential Needs: The Results of a National Search for Exemplary Utility-Funded Low-Income Energy Efficiency Programs". Available at <http://www.aceee.org/sites/default/files/publications/researchreports/U053.pdf>

^{vii}Opower analysis of 8,124 programs filed by 86 utilities, including 584 low-income programs as contained in Kushler, Marin; York, Dan; Witte, Patty, ACEEE, Sept 2005, "Meeting Essential Needs: The Results of a National Search for Exemplary Utility-Funded Low-Income Energy Efficiency Programs". Available at <http://www.aceee.org/sites/default/files/publications/researchreports/U053.pdf>

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AESP News



Taxes done? Now register for AESP's Spring Conference

Now that you've fulfilled your obligation to Uncle Sam, it's time to fulfill an obligation to yourself to keep up with the developments in EE marketing and implementation. AESP's Spring Conference "Finding New Pathways to Reach Program Goals" (Baltimore, May 12-14) will feature over 25 presentations starting with keynote speaker Roland Risser sharing what the U.S. DOE's Building Technologies Office is working on to improve building efficiency and drive cost-effective solutions into the market. And stay for the exciting closing where Julie Albright from the University of Southern California will explain the five forces of change you need to know about that affect energy consumers of the future. [Register by April 30 at aesp.org.](#)

Stand Out in Marketing and Leadership

Get training and get ahead in your workplace. AESP will be presenting two training courses "Strategic Marketing of your Energy Efficiency Programs" and "Leadership Training for Exceptional Team Performance" on May 14-15 in Baltimore. (Group Members, you can use points to register for the training courses.) [Get more details here and sign up today.](#)

The 2014 State of the Industry Report is here

Thank you again to all of you who participated in AESP's State of the Industry survey at the end of last year. The results are now published in the AESP 2014 State of the Industry Report. Download it now by logging into your [AESP member portal](#) and learn about the latest industry trends, its top challenges and opportunities.

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News Releases and Announcements

SmartWatt Energy's design and installation of Blue Diamond Growers' lighting & controls project earns recognition

