$27,243,003
NET LIFETIME ECONOMIC BENEFITS

464
COMMERCIAL AND INDUSTRIAL PROJECTS

61,509
megawatt-hours of energy saved

14,687
end-use customers served

101%
evaluation, measurement, and verification score

$45,020,839
TOTAL RESOURCE BENEFITS

THE NUMBERS ARE IN...

$69,844,900
LIFETIME CUSTOMER SAVINGS

37
entities benchmarked

192,584
EFFICIENT PRODUCTS INSTALLED

94,000+
free light bulbs distributed

34
VENDOR PARTNER ALLIES

19
Ambassador of Energy Efficiency awards

52
local outreach activities


MONEY &ENERGY SAVINGS
smart energy solutions
VENDOR PARTNER ALLY
ENERGY EXPERTS
POWERFUL SAVINGS
CONSULTATIVE
CREDIBLE GUIDANCE
community-focused
AND THE WORD IS OUT.
LOCAL ECONOMIC BENEFITS
improved energy efficiency
community outreach
collaborative partnerships
POSITIVE CHANGE
EXCELLENT VALUE
powerful impact
incentives
custom solutions
LONG-TERM SAVINGS
sustainable
PUBLIC POWER
PROVEN RESULTS
comprehensive
TECHNICAL ASSISTANCE
BUSINESS ATTRACTION & RETENTION
innovative

EFFICIENCY SMART
2013 ANNUAL REPORT

The 2011 and 2012 data has been subject to external evaluation, measurement, and verification. Some numbers may have been updated from earlier reports to reflect these changes. The 2013 data is still subject to change based on savings verification. Numbers throughout this annual report have been rounded.

CELEBRATING > > > OUR COLLECTIVE SUCCESSES

When we began helping individuals, businesses, and municipalities change the way they use energy, we were confident that our programs would work. Today, we have proof. The results from our three-year subscription period are in, and we are excited to report that we have achieved what we promised.

WE EXCEEDED OUR GOALS AND HELPED

49

COMMUNITIES SAVE MONEY AND ENERGY.

We stimulated local economies. We aided in economic, community, and workforce development. We empowered businesses and residents to make smart choices about how they consume electricity. We created value that will continue to benefit these communities for years to come.

These results are now attracting additional communities, renewed subscriptions, and a new level of excitement about what we do. We are thrilled to welcome both new and returning customers, and to make all of them the same promise we made three years ago...small changes, big savings, unlimited potential.

EFFICIENCY SMART

KRISTYN WILDER,
MBA, CDS, CSSBB, PMP,
EXECUTIVE DIRECTOR

When Efficiency Smart launched in 2011, the goals ahead of it were challenging, and some people even suggested that they were impossible to attain. I am proud to say that the numbers are in and the word is out. Not only did we exceed our goals for our first contract period, but we also helped shape the future of energy efficiency in Ohio, Pennsylvania, and Michigan.

> "Now, more than ever, we are rolling up our sleeves and finding innovative solutions that reduce energy consumption in our participating communities."

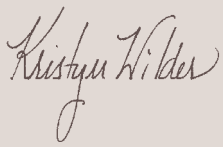
Along the way, we have developed both partnerships and friendships. Without these, it would not have been possible to achieve our lofty goals. We worked closely with American Municipal Power (AMP), city officials, our municipal electric partners, residents, businesses, and community organizations to maximize the benefits of energy efficiency in each participating community. Our impact in these communities extends well beyond energy savings, providing lasting economic and societal benefits.

Our participating public power communities have made the choice to provide their residents and businesses with local, reliable, and responsive electric services. As the only energy efficiency model in the country whose communities voluntarily commit to subscribe to its energy efficiency services, Efficiency Smart offers communities the opportunity to responsibly manage their power resources. We have demonstrated our commitment to helping our participants save energy and money, and take great pride in our role as an extension of their electric utility.

The past year was successful for Efficiency Smart, but there is still much more we can do. Now, more than ever, we are rolling up our sleeves and finding innovative solutions that reduce energy consumption in our participating communities. We are incorporating the valuable knowledge that we gained through serving our municipal electric partners. We are listening to our partners' feedback and adapting to meet their needs. We are constantly working to enhance our services. We continue to set challenging but attainable goals.

I believe strongly in our offerings, and I am confident that our most successful times still lie ahead. I look forward to entering the next phase with our new and returning participants and encourage any community not currently participating to seriously consider all the benefits of subscription. With your support, we will boldly continue to go where no energy efficiency provider has gone before.

On behalf of the entire Efficiency Smart team,



KRISTYN WILDER, MBA, CDS, CSSBB, PMP
Executive Director, Efficiency Smart

2013 was a noteworthy year for American Municipal Power's successful Efficiency Smart. The year marked the end of its initial three-year contract period and provided important benchmarks quantifying both its success and its value to participating AMP member communities.

As detailed in this report, the results speak for themselves…

- Efficiency Smart reached 150 percent of its three-year energy savings target
- All participating communities met their energy savings guarantees
- Realization rates place Efficiency Smart among the top one percent of energy efficiency programs in the country

> "AMP is understandably proud of Efficiency Smart and recognizes the important role it plays in our members' power supply strategies. We see Efficiency Smart continuing to meets members' needs into the future."

In 2010 AMP executed a consent decree with the United States Environmental Protection Agency regarding the now retired Richard H. Gorsuch Generating Station. A provision of the consent decree was the establishment of an energy efficiency program involving AMP members participating in the Gorsuch project, which allowed impacted members to keep dollars locally rather than sending them to Washington D.C. Due to the success of Efficiency Smart's first three years, all requirements of that consent decree have been met and indeed surpassed.

But Efficiency Smart did more than meet the demands of the consent decree. Working in partnership with the Vermont Energy Investment Corporation (VEIC), AMP created a robust, multi-state energy efficiency program that included performance guarantees for participants and a third-party process to verify results.

As we move forward, the value of Efficiency Smart remains clear. AMP and Efficiency Smart staff continue efforts to resubscribe participants and market Efficiency Smart to more communities. Efficiency Smart not only provides value through a reduction in energy usage from a utility perspective as a least-cost – least-risk resource, but also has a clear value as an economic development tool. From a customer perspective, the formula of rate x usage = their monthly bill is unchangeable. Efficiency Smart provides a tool for customers to lower usage through increased energy efficiency in processes, thus reducing their operating costs. In today's world companies need these types of services and customers are expecting it.

AMP is understandably proud of Efficiency Smart and recognizes the important role it plays in our members' power supply strategies. We see Efficiency Smart continuing to meets members' needs into the future.

MARC GERKEN, PE
President/CEO
American Municipal Power

JON BISHER, PHD
Chairman, Board of Trustees
American Municipal Power
City Manager
City of Napoleon, Ohio

AMERICAN MUNICIPAL POWER

MARC GERKEN, PE, PRESIDENT/CEO
JON BISHER, PHD, CHAIRMAN, BOARD OF TRUSTEES

EMPOWERING > > > COMMUNITIES

FOR A MORE EFFICIENT TOMORROW

Efficiency Smart provides public power communities a solid path toward securing their energy future, making energy efficiency a collaborative and rewarding experience for the entire community. Our team works closely with customers to help them adopt cost-effective, reliable, and verifiable energy efficiency solutions. These energy-saving improvements lead to increased efficiency for the entire community, now and in the future.

Efficiency Smart was established by American Municipal Power, Inc. (AMP) for the benefit of its member communities and is administered under contract with the Vermont Energy Investment Corporation (VEIC). The venture launched in January 2011 to provide a broad range of energy efficiency services to subscribing AMP member utilities through a three-year performance-based contract. In July 2013, AMP and VEIC executed a second contract that extended the operation of Efficiency Smart through the end of 2016.

Efficiency Smart makes large-scale energy efficiency services available to public power communities that might not otherwise have the resources to implement or contract for the comprehensive services on their own. We help our participating municipal electric systems' business and residential customers reduce their energy consumption and electric bills by providing the technical assistance and financial incentives that allow them to implement energy-saving improvements. In addition to helping them lower their customers' energy bills through efficiency, we provide these communities with advanced technical support, stimulate their local economy, and offer them a cost-effective and low-risk option for diversifying their power supply portfolio.

Our services are delivered through five main programs: the Custom program, the Business Energy Rebates program, the Residential program, the Community and Small Business Outreach program, and the Contractor and Vendor Outreach program. These programs and their related initiatives concentrate on specific areas such as technical consultation, targeted populations, educational outreach, supply chain relationships, business retention and expansion, workforce development, and local job creation.

In 2013, our residential services included discounts on energy-efficient lighting, rebates for energy-efficient appliances and equipment, and free removal of and financial incentives for recycling refrigerators and freezers. Our business services provided small to midsized companies with rebates for more than 90 energy-efficient products and offered large commercial and industrial companies consultative technical assistance, account management services, and customized financial incentives. These core business and residential services will continue during Efficiency Smart's second contract period, with some modifications and enhancements planned to meet the evolving needs of participating communities and their customers.

We help our participating municipal electric systems' business and residential customers reduce their energy consumption and electric bills by providing the technical assistance and financial incentives that allow them to implement energy-saving improvements.

KEY PRIORITIES

- Encouraging demand-side energy management
- Increasing long-term energy efficiency throughout Efficiency Smart's service territory
- Delivering cost-effective services to end-use customers
- Providing energy efficiency education
- Making energy efficiency more affordable to financially vulnerable populations
- Supporting workforce development
- Aiding in business retention and attraction
- Facilitating local job growth

EXCEEDING GOALS

The end of 2013 marked not only the conclusion of Efficiency Smart's most successful year to date, but also the close of its initial contract and first three years of operation. When services commenced in January 2011, Efficiency Smart's participating municipal electric systems entrusted it to take a concept and develop it into successfully implemented services. Now, with the first contract complete, it's clear that Efficiency Smart has accomplished its goals and lived up to its promises. As we move into our next phase, momentum continues to build.

Efficiency Smart's initial three-year service period, which ran through December 31, 2013, was valued at approximately $27 million and was expected to save participants approximately 81,000 megawatt-hours (MWh) of energy by the end of 2013. In addition to this cumulative goal, each of the 49 participating municipal electric systems had specific energy savings targets.

Efficiency Smart tracks and reports actual savings to all participating communities, and all claimed savings are later verified by an independent third-party evaluator.

> In May 2013, Efficiency Smart surpassed its three-year savings goal, and by the end of 2013, it had met the guaranteed savings goal for all of its 49 participants.

If three-year targets are not met, participants will be refunded for any guaranteed savings not delivered. In May 2013, Efficiency Smart surpassed its three-year savings goal, and by the end of 2013, it had met the guaranteed savings goal for all of its 49 participants.

We finished 2013 and our first contract period with a total of 121,339 MWh of savings for our subscribing municipal electric systems, which was nearly 150 percent of our three-year goal. In 2013, Efficiency Smart achieved 61,509 MWh of savings, exceeding savings of 59,830 MWh realized in 2011 and 2012 combined. All 49 participating communities met their guaranteed savings targets, and 39 of them also exceeded 100 percent of their community energy-savings goal.

In order to maintain a high level of savings, we will continue to focus on increasing awareness, understanding, and adoption of energy efficiency during our second contract period. In 2013, our customer support team had 2,177 customer interactions, providing these individuals with general energy efficiency guidance and answering questions on service offerings, product performance, and more. Staff also met regularly with businesses to assist with their energy efficiency goals and provide technical advice.

TOP 5 SECTORS THAT COMPLETED PROJECTS WITH EFFICIENCY SMART IN 2013

Additionally, marketing and promotional efforts underwent several improvements during 2013. These included:

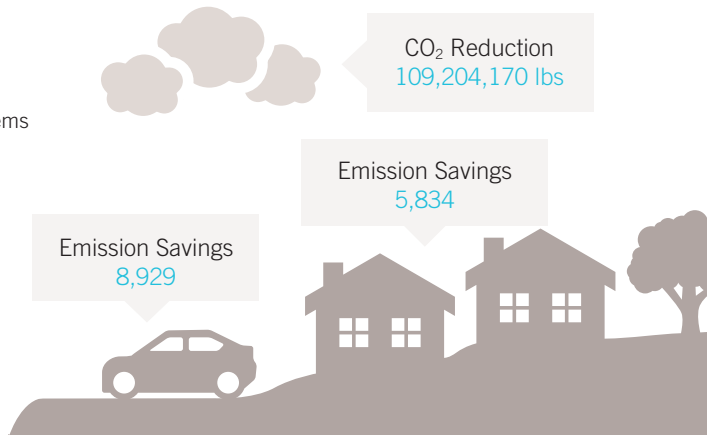
- Enhancing the Efficiency Smart brand with a more clearly defined focus, more consistent messaging, and improved visual elements
- Introducing a new website with improved functionality and navigation to enrich visitors' online experience
- Developing multiple new marketing materials and promotions to inform and motivate end-use customers to take action
- Launching our social media presence as a communication tool to increase audience engagement and share real-time information

As a result of this comprehensive approach, 14,311 residential and 376 commercial and industrial energy users in Efficiency Smart's 49 municipal electric systems installed energy efficiency measures in their home or business in 2013. These improvements translated to 61,509 MWh of energy savings for the year, which is roughly equivalent to:

- The electricity used by approximately 5,834 homes annually
- The greenhouse gas emissions by 8,929 cars in a year
- The reduction of 109,204,170 pounds of carbon dioxide (CO_2).

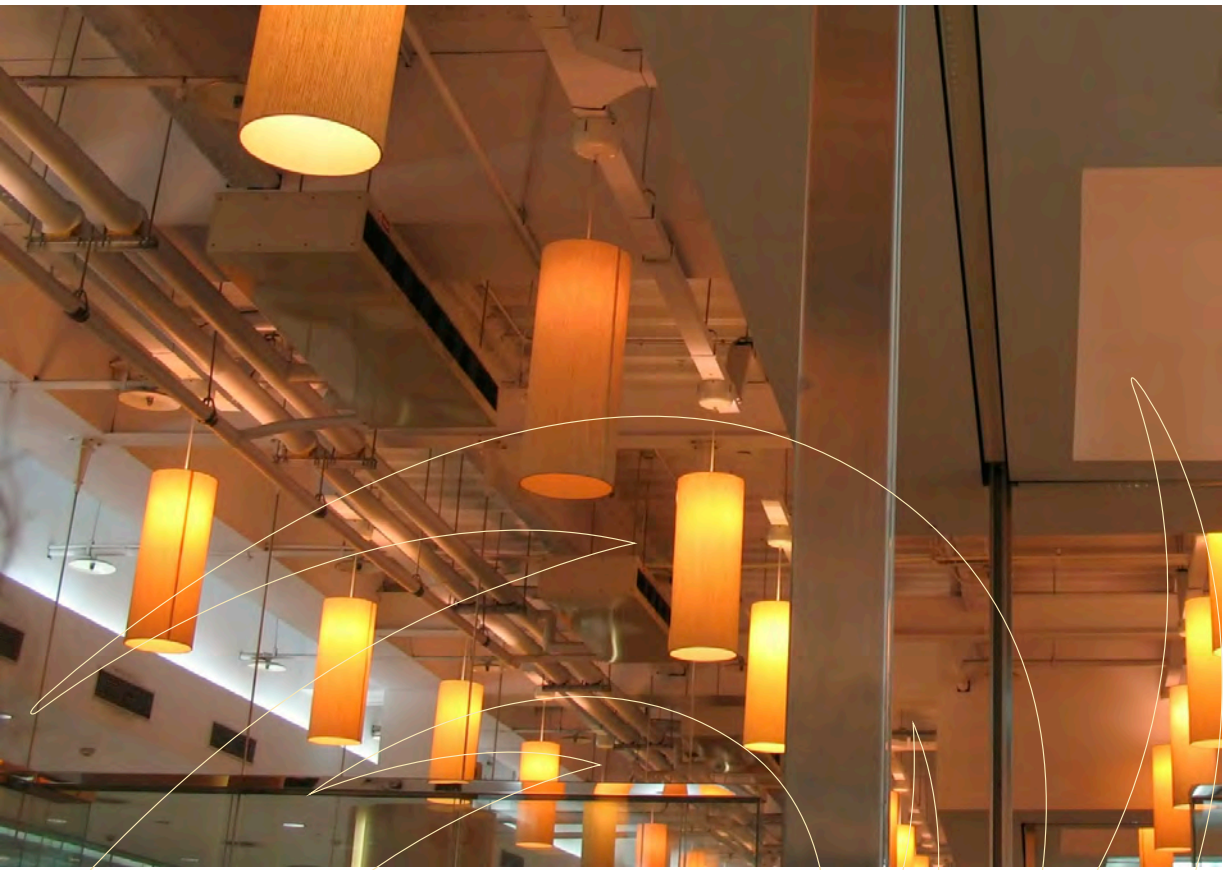
Efficiency Smart continues to identify specific markets across participating communities where there is high potential for energy savings. We work closely with businesses and institutions in these segments to maximize their energy savings, drawing on increased expertise in these areas.

Within these key sectors, particular areas have proven to offer particularly robust savings or shown increased interest in energy efficiency projects across several communities such as municipal street lighting, wastewater treatment plants, colleges and universities, K-12 institutions, and places of worship.



61,509 MWh OF ENERGY SAVINGS IN 2013

> > > EXCEEDING GOALS



In order to help organizations such as those mentioned better understand their facilities' energy use, we piloted the ENERGY STAR® Portfolio Manager Assessment in 2013. This benchmarking service assesses the energy performance of facilities and compares it to the performance of similar buildings. There is no cost for this service for commercial and industrial customers of our participating utilities.

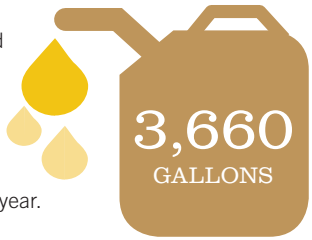
Through this effort, we tracked and scored actual energy usage based on the customers' industry, and with the help of the ENERGY STAR Portfolio Manager, we enabled these companies to compare energy use for their building with national averages. We also presented results and benchmarking reports that included steps for improving the energy performance of the buildings. The response to our benchmarking assessments has been very positive, and we plan to expand these efforts during 2014.

Launched in 2013, the Direct Assist initiative was an additional way we helped companies improve their energy efficiency. During a direct assist, Efficiency Smart provides a higher-than-typical rebate to an eligible company, and the company uses an approved Vendor Partner Ally (VPA) to complete the improvement project. There are specific criteria that a community and company must meet to qualify for this initiative. For example, a company may qualify due to a financial hardship if an evaluation reveals an energy-saving improvement that could yield significant savings.

In addition to continuing our efforts to help participating electric systems and their customers become more energy efficient, we remain dedicated to sustainability in our own practices. In 2013, Efficiency Smart became a member of Columbus GreenSpot and created an internal "green team" to improve its environmental impact of doing business. As part of this effort, we committed to more than 30 measures in the categories of communication, waste management, saving water, saving energy, and greener travel, which we've started to implement. We plan to increase these efforts, and have also recruited our landlord and energy efficiency partner, American Municipal Power, Inc. (AMP), as a Columbus GreenSpot member.

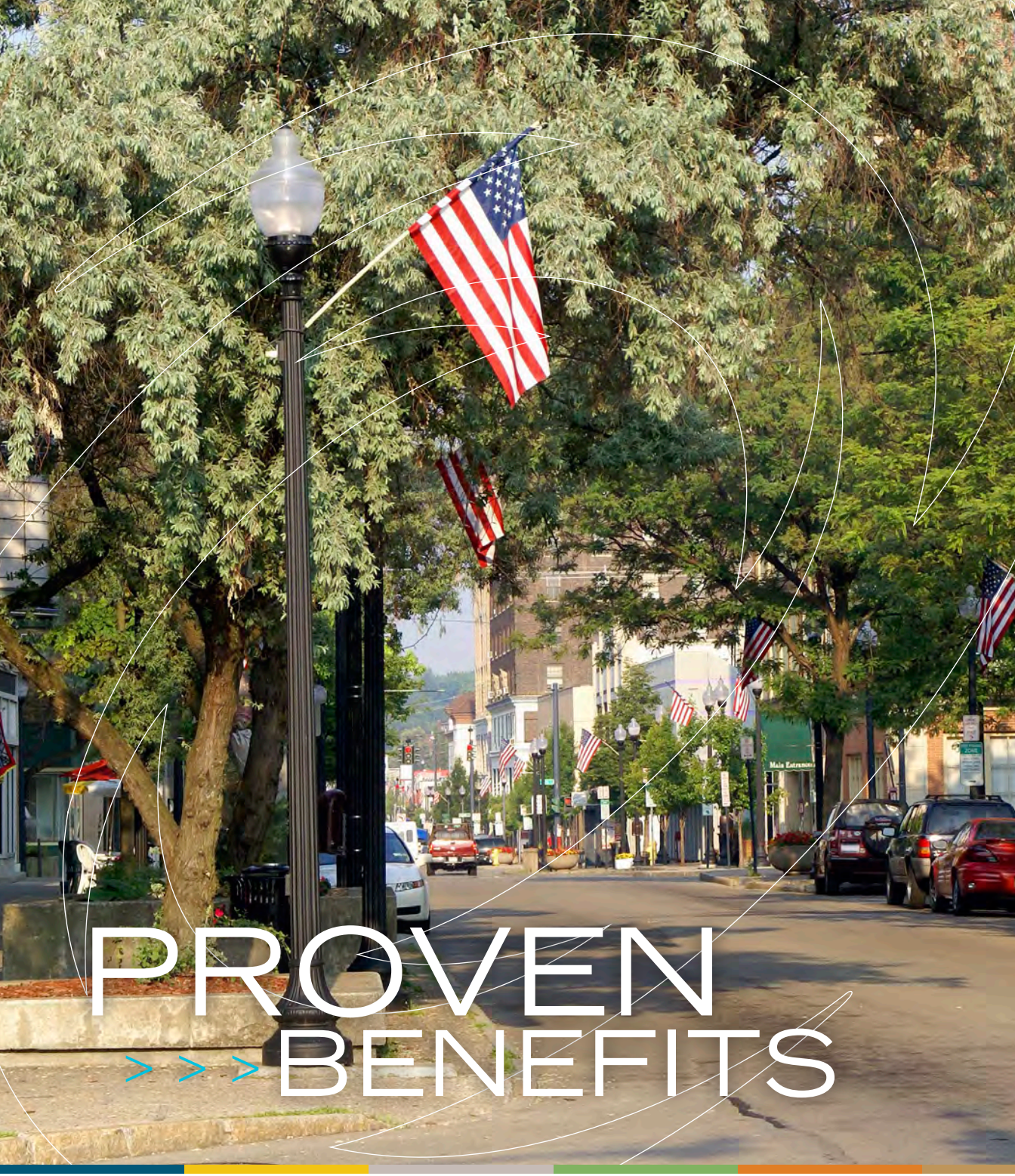
Also in line with our commitment to sustainability, we continue to use fuel-efficient vehicles as we regularly travel throughout our participating communities. In 2013, Efficiency Smart's fleet was designated a Three-Star Ohio Green Fleet, in recognition of the work Efficiency Smart has done to improve efficiency and environmental performance.

Efficiency Smart's efficient fleet of vehicles continues to save time and money through reduced fuel consumption. In 2013, our vehicles traveled nearly 200,000 miles. During that time, they were filled up approximately 12 fewer times per month than typical cars would have been. Thus, we saved approximately 3,660 gallons of gasoline over the year.

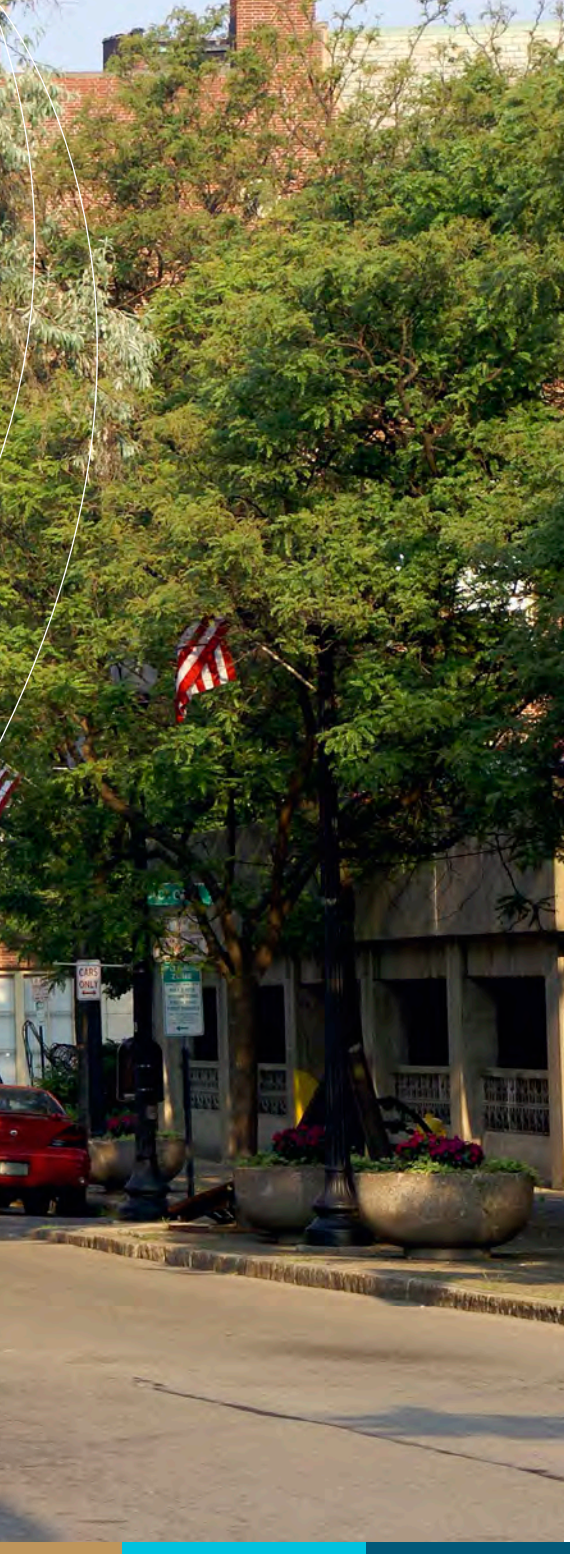


2013 KEY ACCOMPLISHMENTS

- Achieved 61,509 MWh of savings for our participating municipal electric systems, bringing three-year combined savings to 121,339 MWh and exceeding our overall goal by nearly 50 percent
- Reached guaranteed savings targets for all 49 of our participating municipal electric systems
- Received a 2012 savings realization score of 101 percent through independent evaluation, measurement, and verification in 2013
- Enabled 14,687 end-use customers to install 192,584 efficiency measures
- Coordinated 52 events and activities in participating communities
- Distributed approximately 94,000 free energy-efficient light bulbs through our community outreach efforts
- Introduced pool pumps as a new residential rebate opportunity
- Provided financial incentives and consultation to 376 companies through our Custom and Business Energy Rebates programs
- Recognized 19 businesses with our newly introduced Ambassador of Energy Efficiency Award for their commitment and innovation in reducing energy usage
- Facilitated benchmarking efforts for 37 entities through our ENERGY STAR Portfolio Manager Assessment



PROVEN BENEFITS



The benefits of energy efficiency are real. Simply defined, energy efficiency is the optimization of energy required to provide a given level of service or activity, although its impact extends well beyond energy savings. Efficiency Smart helps communities become stronger and more sustainable by empowering their residents and businesses with resources that allow them to reduce energy use. The savings help residents improve their quality of life and help businesses become more resilient entities within their communities.

For utilities, energy efficiency provides numerous short- and long-term benefits. It is an excellent value, representing the lowest-cost long-term power supply resource available. Energy efficiency also offers the least risk, alleviating uncertainty associated with market variability, financial exposure to potential carbon regulations, and fluctuating costs connected to future power plant construction. Additionally, energy efficiency measures can potentially save utilities money by postponing the need for system upgrades, fuel costs, and system growth while reducing power bills for end-use customers—possibly even when energy prices go up.

The benefits of energy efficiency are real...The savings help residents improve their quality of life and help businesses become more resilient entities within their communities.

In addition to adding value to participating municipal electric systems' power supply portfolio, Efficiency Smart strengthens the economic and societal benefits associated with energy efficiency for these public power communities. We serve as positive ambassadors for the community, extending local utilities' reach as we interact with their customers to help them reap the benefits of energy efficiency.

The savings achieved through energy efficiency help families reduce household expenses, leaving them with more disposable income to invest in their community. This is especially important for financially vulnerable populations—a key focus area for Efficiency Smart—who may spend a larger percentage of their income on energy costs.

UNIQUE Benefits

Efficiency Smart helps participating municipal electric systems compete with surrounding utilities, providing comprehensive energy efficiency services that rival those of investor-owned utilities. We also offer several less common features, including:

- Tailored services to fit the needs and resources of the municipal electric system and its customers
- Savings guaranteed at the municipal level for full-participants
- Independent, third-party measurement, verification, and evaluation of savings claims
- Turnkey services supported by an experienced staff with extensive technical expertise
- A consultative approach that goes beyond simply offering rebates
- Customized incentives and services for large commercial and industrial utility customers
- Community-based and customer-focused tactics
- Cost-effective solutions, with an emphasis on making energy efficiency affordable to all customer classes

> > > PROVEN BENEFITS

Likewise, businesses can significantly reduce their operating costs and increase their long-term savings through energy efficiency. This is why many communities now leverage energy efficiency services as a primary business retention and attraction tool, understanding that they may be a deciding factor when a company is choosing a location or utility provider.

Activities related to energy efficiency have also been proven to facilitate job creation. We fuel the local job market both directly through our organization's growth as our services expand and indirectly by increasing demand for related products and services.

According to the American Council for an Energy-Efficient Economy, energy efficiency programs support approximately 20 jobs for every $1 million in related expenditures.[1] Thus, Efficiency Smart helped create or retain an estimated 164 jobs during 2013. Additionally, saving money through lower electric bills frees up funds for businesses and individuals to reinvest in the economy, which may ultimately induce a second round of spending and job creation.

Three pillars of Efficiency Smart's success to date have been economic, workforce, and community development–and the organization's dedication to them. This includes our commitment to encouraging end-use customers to shop locally, training and using local vendors to perform work, and making energy efficiency more affordable to all customer classes.

[1] "How Does Energy Efficiency Create Jobs," American Council for an Energy-Efficient Economy, October 2012; http://www.aceee.org/files/pdf/white-paper/energy-efficiency-job-creation.pdf.

Another measure of Efficiency Smart's economic value is its benefit-to-cost ratio. Each of Efficiency Smart's subscribing municipal electric systems invests a fixed rate that is applied to its kilowatt-hour (kWh) sales for each year the community is enrolled in Efficiency Smart. The services provided then help the utility avoid future electrical and demand charges and in some cases offer fossil fuel or water savings. The present value of lifetime economic benefits from the resulting savings is referred to as the utility's total resource benefit (TRB), and the benefit-to-cost ratio is TRB divided by program costs.

In 2013, Efficiency Smart's benefit-to-cost ratio was more than 3 to 1. This is a much greater value than the 2 to 1 benefit-to-cost ratio originally projected for Efficiency Smart.

Aggregate Benefits & Costs for Efficiency Smart's Services in 2013

$45,020,839
Total Resource Benefits

÷

$13,349,963
Total Program Costs Paid by Participants

=

3.37:1
Benefit-to-Cost Ratio

Efficiency Smart's proven model offers public power communities access to large-scale services executed at the local level. Ultimately, municipal electric systems enrolled in Efficiency Smart can achieve strong financial benefits through participation without incurring the considerable challenges inherent to internal program implementation. This allows the municipal electric system to attain a significant return on its investment while still providing all the energy efficiency services that many end-use customers have come to expect as part of their utility package.

CUSTOM > > > PROGRAM

Efficiency Smart's Custom program delivers tailored consultative services and financial incentives to companies that use more than 500,000 kilowatt-hours (kWh) of electricity annually. Efficiency Smart offers these large commercial and industrial organizations extensive technical assistance to help them meet their specific business needs and long-term energy efficiency goals. We also provide financial rewards for purchasing energy-efficient equipment and implementing technologies that reduce energy consumption.

Companies that qualify for the Custom program have access to a dedicated account manager and receive the engineering and technical expertise of our energy consultants. Our team is always ready to provide credible and objective answers to customers' questions and challenges. We work hand-in-hand with businesses to proactively identify cost-effective and measurable ways for them to save electricity and improve their bottom line.

Our team stays abreast of existing and new technologies to ensure that businesses receive maximum savings from their energy efficiency projects. Regardless of whether a company is completing a small lighting project or several complex projects across multiple technologies, we are prepared to address that business's unique energy efficiency needs. Additionally, all savings are independently verified to ensure accuracy, and our savings realization rates are among the highest in the industry.

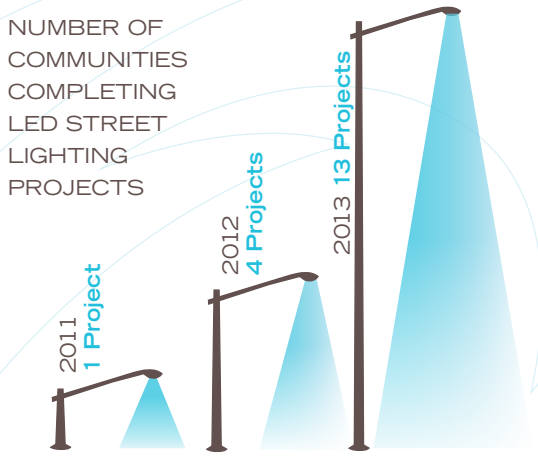
Efficiency Smart's Custom program supports a multitude of energy efficiency projects, from common measures to complex systems. Example custom projects:

> Equipment optimization
> Product upgrades and replacements
> New equipment installation
> New construction

During 2013, 260 companies installed 4,028 measures through the Custom program, which translated to 54,548 megawatt-hours (MWh) of claimed savings for Efficiency Smart's participating communities. When the Custom program is combined with customers assisted through our Business Energy Rebates program, commercial and industrial customers saved a total of 55,773 MWh of energy in 2013. Both the commercial and industrial markets performed well, saving 28,394 and 27,398 MWh of energy, respectively. We maintain a strong pipeline of project opportunities throughout our participating communities and expect commercial and industrial projects will continue to provide significant energy savings for participants.

Municipal Streetlights

> > > CUSTOM PROGRAM TREND HIGHLIGHT



In 2013, 13 municipalities utilized Efficiency Smart's Custom program to complete light-emitting diode (LED) street lighting projects, which was more than a quarter of all participating communities. This was a significant uptick from the four projects completed in 2012 and the single project completed in 2011, due to the improved performance of LED street lighting, the reduced implementation costs, and the growing collaboration with Efficiency Smart's technical experts.

Streetlights often account for 25 percent or more of a municipality's electric bill, and upgrading to LEDs can reduce energy use by up to 80 percent compared to existing lighting. Because qualifying LEDs produce more light output per unit of energy than any other form of lighting, municipalities that replace existing streetlights with LEDs ensure that they receive the best value on their lighting.

80% By upgrading to LEDs, Municipalities can reduce energy usage by up to 80 percent compared to existing light.

LED streetlights also provide a high level of system efficiency, as measured by the number of lumens that reach the target area, compared to how many lumens are produced by the lamp. Traditional streetlights emit light in all directions, requiring reflectors to move light to the targeted area. Not all of this light can be effectively redirected, which wastes energy. Since LEDs are directional, all light is focused toward the target area, resulting in improved system efficiency over traditional street lighting sources.

In addition to the energy savings, municipalities save significant amounts of money on maintenance costs. High pressure sodium (HPS) fixtures, a common municipal street lighting option, typically require a lamp change after 24,000 to 30,000 hours and a ballast or entire fixture replacement after 48,000 to 60,000 hours of operation. Qualifying LED streetlights are designed to last 60,000 to 100,000 hours with no maintenance required. Exterior LED fixtures are built to withstand the elements, and because they are encased in plastic, they are also not as easily damaged as other light sources. Given the number of streetlights operated in a community, the savings on maintenance costs alone can be tremendous.

An additional advantage of LED streetlights compared to traditional HPS lights is improved safety for drivers. LEDs offer a desirable color temperature—the color of light measured in degrees Kelvin (K), which relates to the quality of light from a source. Traditional HPS lights have a color temperature of approximately 2200K, which results in a yellowish light. This can create a warm and sleepy feeling for drivers, which is an undesirable quality on a roadway. Alternatively, LEDs for street lighting applications are designed to emit a cool white (4100K) or daylight white (5000K) color, which simulates a daylight feeling, and can keep drivers more alert. Additionally, the directional nature of LEDs allows for an even light distribution, resulting in a lower number of dark spots than would be experienced with traditional streetlights.

REDUCED MAINTENANCE COST

HPS fixtures can require a lamp change after 24,000 hours.

HPS BULBS
24,000 hours

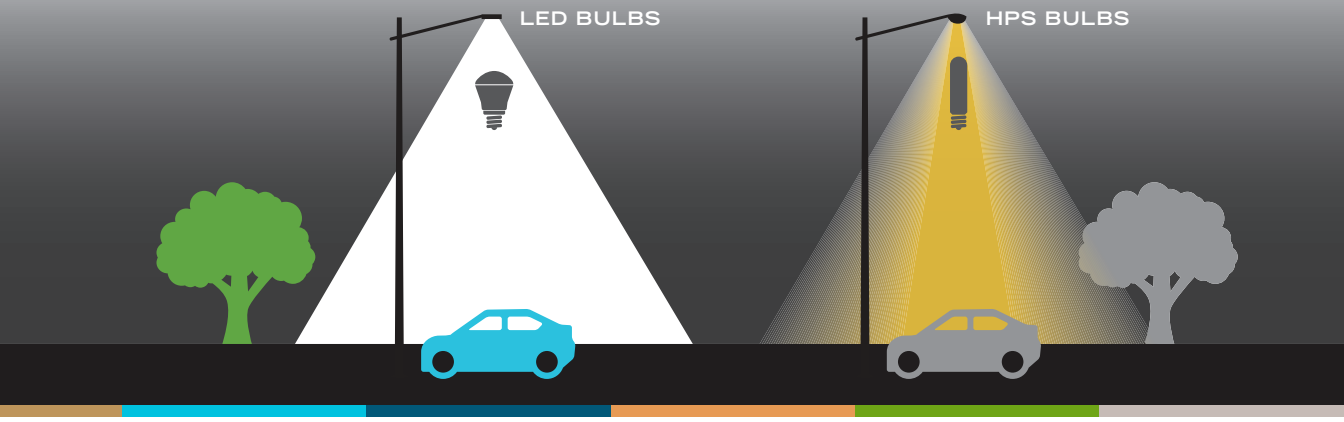
LEDs can last up to 100,000 hours with no maintenance required.

LED BULBS
100,000 hours

COLUMBIANA, OHIO

IMPROVED DRIVER SAFETY

LEDs emit a white color to simulate daylight and reduce the amount of dark spots.



> > > Municipal Streetlights

Efficiency Smart provides financial incentives for LED street lighting fixtures that meet industry-wide performance criteria and testing requirements. This ensures that new lighting upgrades will meet expectations for quality, longevity, and durability. There are numerous manufacturers of LED light fixtures with various levels of quality, and municipalities are able to use Efficiency Smart's guidelines to select fixtures that help protect their financial investments.

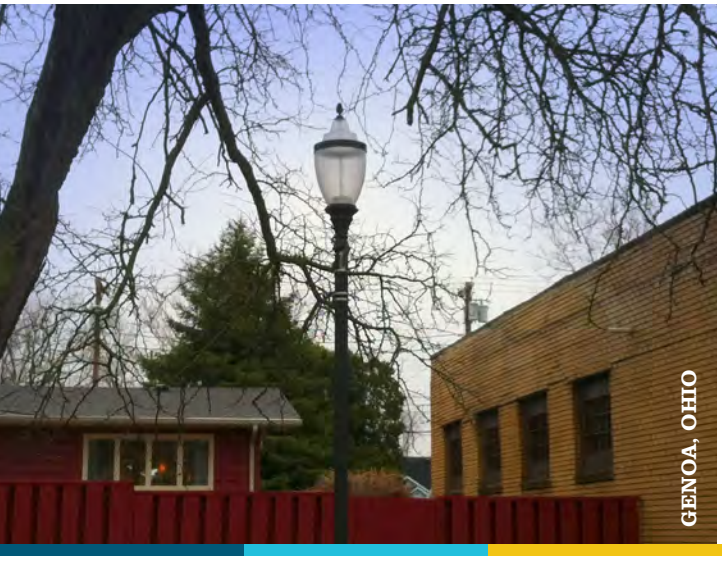
In 2013, some municipalities reviewed previous Efficiency Smart LED street lighting projects before implementing their own lighting upgrades. Reviewing the lighting quality and cost savings analyses for communities of similar size, participating communities were able to determine what scope of project would work best for them.

Municipal customers were also able to work with Efficiency Smart to implement LED street lighting in an approach most beneficial to their needs. The street lighting portfolio was reviewed for one municipality, and cost savings analysis for multiple implementation strategies were provided. Using Efficiency Smart's calculations, officials were able to see what options were available, learn the cost savings and payback amounts for each approach, and pick the solution that best fulfilled the community's specific circumstances and needs.

Efficiency Smart energy consultants can provide guidance and technical assistance to help municipalities upgrade to LED street lighting, including:

- Reviewing street lighting inventory
- Identifying opportunities to eliminate unnecessary lighting
- Preparing a scope of work for converting current fixtures to LEDs
- Performing a financial analysis of proposed projects
- Evaluating the relative costs and benefits of purchasing versus leasing lighting
- Verifying that installation is complete and lighting fixtures are working as intended

By taking advantage of these services, municipalities can ensure that they receive the best value on street lighting projects while reaping all the benefits.

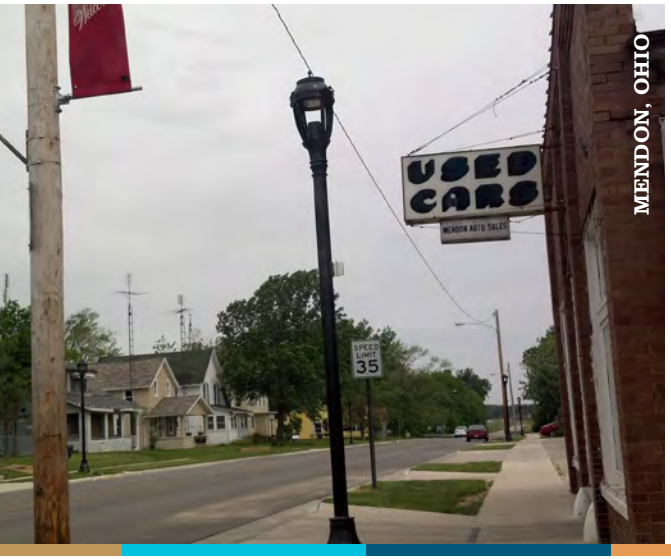


GENOA, OHIO

HUDSON, OHIO

2013 Municipal Streetlight Projects

Community	Annual Energy Savings	Annual Cost Savings	Lifetime Cost Savings	Annual CO_2 Reduction
Amherst	31,700 kWh	$3,000	$44,500	59,200 pounds
Brewster	11,900 kWh	$1,100	$16,700	22,100 pounds
Coldwater	99,800 kWh	$8,500	$212,100	186,000 pounds
Columbiana	44,300 kWh	$4,100	$62,100	82,500 pounds
Cuyahoga Falls	177,200 kWh	$17,300	$258,900	330,400 pounds
Elmore	24,300 kWh	$1,800	$27,700	45,400 pounds
Genoa	95,900 kWh	$9,000	$134,500	178,800 pounds
Hudson	49,600 kWh	$4,600	$69,500	92,400 pounds
Mendon	28,000 kWh	$2,600	$39,200	52,200 pounds
Orrville /Marshallville	15,800 kWh	$1,500	$22,100	29,400 pounds
Versailles	17,300 kWh	$1,600	$24,300	32,300 pounds
Wadsworth	117,300 kWh	$11,000	$164,500	214,600 pounds
Wellington	84,600 kWh	$4,200	$63,600	84,500 pounds
Total	**797,700 kWh**	**$70,300**	**$1,139,700**	**1,409,800 pounds**



MENDON, OHIO


WELLINGTON, OHIO

BUSINESS > > > ENERGY REBATES PROGRAM

Efficiency Smart's Business Energy Rebates (BER) program provides a quick and easy way for small and midsized businesses to receive funding for common energy efficiency projects. This program offers financial incentives for companies that purchase and install qualifying energy-efficient equipment. A single form makes it simple for companies to apply for a rebate.

Companies with annual electric usage of between 20,000 and 500,000 kilowatt-hours (kWh) of energy–between roughly $2,000 and $50,000 in annual electric costs–that are customers of a participating municipal electric system are eligible for the BER program. Annual usage is evaluated across all business locations. Chain stores, multi-facility businesses, and municipal entities usually exceed this level and may be considered Custom program customers.

More than 90 standardized rebates were available in 2013 for BER customers implementing common energy efficiency measures. Rebate amounts vary by technology and are based on a fixed value per unit for the specific item installed. Qualifying projects include:

- Compressed air
- Food service equipment
- Heating, ventilation, and air conditioning (HVAC)
- Lighting and lighting controls
- Motors and variable frequency drives
- Refrigeration

BER program 2013 enhancements included:

- Adding new rebates for seven light-emitting diode (LED) measures as well as retrofit kits for existing parking and roadway fixtures, wall mounted exterior fixtures, parking garage fixtures, and canopy fixtures as eligible upgrades
- Standardizing rebate amounts for high-performance T8 (HPT8) lights that replace T12s or that are new, additional fixtures
- Removing obsolete measures from the commercial lighting and LED lighting form worksheets

The above improvements clarified rebate differences and categories, resulted in fewer recategorized measures, and made Efficiency Smart's commercial and industrial LED offering one of the most comprehensive in Ohio.

The BER program experienced a slight increase in participation in 2013. There were 57 projects completed during 2013, compared to 51 projects completed in 2012, a 12 percent increase. Total incentives paid to BER customers also grew, increasing from $89,963 in 2012 to $112,338 in 2013, a 25 percent rise. In total, BER customers reduced their energy consumption by 1,226 megawatt-hours (MWh), at an average of 21.5 MWh per project over the course of the year.

Places of Worship

> > > BER PROGRAM TREND HIGHLIGHT

In 2013, 10 places of worship completed energy efficiency projects with Efficiency Smart, accounting for more than 17 percent of all projects for the Business Energy Rebates (BER) program. This sector showed significant growth in 2013; after only two places of worship had completed projects in both 2011 and 2012. All of these projects featured efficient lighting, the majority involving light-emitting diodes (LEDs). High-performance T8 (HPT8) light fixtures and occupancy sensors were also installed.

Although places of worship may not have the amount of operating hours many other facilities do, significant energy savings were still realized by upgrading lighting in the properties. Efficient lighting upgrades in classrooms, hallways, offices, and restrooms were similar to those of projects completed in larger facilities, and the installation of efficient exterior lighting used to illuminate displays, flags, and parking lots yielded significant savings.

Beyond energy savings, upgraded lighting resulted in additional benefits for places of worship. One organization's worship leader was uncomfortable in the heat produced by spotlights that illuminated the area where he conducted services. When the organization replaced the existing spotlights with LEDs, the quality of lighting was maintained and the comfort level was improved.

Some building designs presented structural challenges for lighting upgrades. Some sanctuaries had high ceilings, creating financial and safety obstacles to replacing lights that burned out. To address this problem, organizations reduced the frequency of required maintenance by installing efficient, longer-lasting lighting.

Creating a friendly environment for congregation members and guests was an additional factor in the decision to install LEDs. In sanctuaries, the role of light is critical to creating a welcoming ambiance. Because they are directional, LEDs are able to highlight certain building features and displays. In addition, LEDs in sanctuaries provide strong illumination levels that enable guests to read hymnals, bulletins, and other materials several feet below the light fixtures.

These places of worship made fiscally sound decisions to reduce their operating expenses by installing efficient lighting. This provided for more funds to be invested back into the communities through local outreach efforts.

Energy efficiency projects were completed at places of worship in the following communities in 2013:

- Bowling Green, Ohio (three locations)
- Cleveland, Ohio
- Cuyahoga Falls, Ohio
- Dover, Ohio
- Ephrata, Pennsylvania
- Oberlin, Ohio
- Tipp City, Ohio
- Versailles, Ohio

In total, Efficiency Smart's BER program realized approximately 209 megawatt-hours (MWh) of savings at places of worship in 2013, and customers received $35,390 in incentives for these efficient projects.

CONTRACTOR & VENDOR OUTREACH PROGRAM

Efficiency Smart's Contractor & Vendor Outreach program promotes energy efficiency at the supply chain level through collaboration with local professionals. The program's core purpose is to extend Efficiency Smart's reach throughout its service territory by leveraging the skills and expertise of vendors and contractors that perform high-quality work. A primary focus of this program is to qualify selected supply chain professionals as participants in the Vendor Partner Ally (VPA) initiative.

Potential VPAs must commit to partner with us to increase energy efficiency throughout our service territory and must meet the following requirements to be approved for the initiative:

- Attendance at a Contractor and Vendor Outreach seminar
- Successful completion of at least one project with an Efficiency Smart customer
- Satisfactory survey rating from an Efficiency Smart customer
- Positive rating from Efficiency Smart on adherence to program rules and eligibility as well as the quality, completeness, and timeliness of project submission information
- Acceptable Better Business Bureau rating, where applicable

Supply chain professionals approved as Efficiency Smart VPAs enjoy several benefits, such as being listed on Efficiency Smart's website and on relevant promotional materials, training opportunities, technical updates, and a VPA badge for use on their marketing materials and website. Recognition as an Efficiency Smart partner offers VPAs more credibility with potential customers and, in turn, brings additional projects to these companies and more energy savings to participating communities. All VPAs are re-evaluated yearly to ensure they continue to meet Efficiency Smart's initiative requirements.

The Direct Assist initiative launched in 2013 offered VPAs even more opportunities to complete projects with Efficiency Smart customers. Through this initiative, VPAs can bid to be the vendor or contractor for projects for which Efficiency Smart covers all or a portion of the customers' costs for the energy efficiency upgrade. Several VPAs also voluntarily responded to requests to perform free audits for customers.

Fourteen new manufacturers, suppliers, designers, and installers of energy-efficient technologies were approved during 2013, bringing the total number of supply chain professionals accepted into the initiative to 34 since it launched in spring 2012. Efficiency Smart VPAs completed 71 projects and helped customers save 8,113 megawatt-hours (MWh) of energy in 2013. Over the course of the first contract period, VPAs completed a total of 185 projects, which translates to 22,816 MWh of energy saved. Of these, 91 projects and 8,837 MWh were achieved after these professionals had completed all of the required steps to become an Efficiency Smart VPA.

From the beginning of the first contract period through the end of 2013, VPAs performed projects in 31 of Efficiency Smart's 49 participating communities. Communities where projects occurred were Amherst, Arcanum, Bowling Green, Brewster, Cleveland, Columbiana, Columbus, Cuyahoga Falls, Dover, Galion, Genoa, Grafton, Haskins, Hudson, Hubbard, Jackson, Jackson Center, Lakeview, Lodi, Minster, Napoleon, New Bremen, Newton Falls, Niles, Oberlin, Orrville, Prospect, St. Marys, Tipp City, Versailles, and Wadsworth.

Impacting Multiple Communities

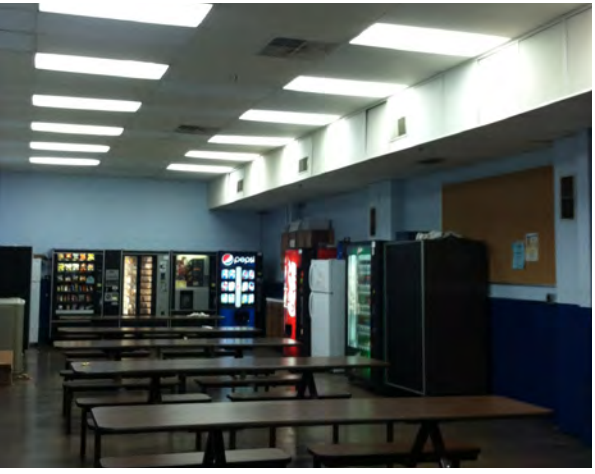
> > > VPA TREND HIGHLIGHT

Efficiency Smart's Vendor Partner Ally (VPA) initiative promotes using qualified local contractors and vendors to complete projects. This benefits communities not just through energy savings, but also by stimulating the economy via the use of area supply chain professionals. Because these contractors and vendors are required to meet several criteria, end customers who work with VPAs can be confident that they are selecting a professional that is knowledgeable and experienced in working with Efficiency Smart. As a result of their partnership with Efficiency Smart, many VPAs have completed projects in multiple participating communities.

VPAs keep Efficiency Smart informed about their efficiency projects in participating communities, which ultimately helps maximize energy savings for customers and assists participating communities in reaching their energy savings goals. For example, one VPA contacted Efficiency Smart for an independent project review for a company in Brewster, Ohio, after it had tested air compressor equipment at the customer's facility. After confirming the energy savings potential and offering an incentive for the project, Efficiency Smart was able to work together with the VPA to increase the confidence of the customer, ultimately leading to completed efficiency upgrades and energy savings for the community.

In another example, a VPA worked with a customer in Cleveland, Ohio, through Efficiency Smart's Business Energy Rebates (BER) program. The VPA contacted Efficiency Smart to verify that high-quality products available for rebates through the BER program were selected for the customer's project. And because the VPA was familiar with Efficiency Smart's BER program, it also assisted the customer by completing the project paperwork.

Since some projects require more than one type of professional, multiple VPAs are sometimes used to complete projects for a customer. In one instance, a VPA was used to create an efficient lighting design



and to supply parts for parking lot lighting upgrades at a car dealership in Cuyahoga Falls, Ohio. Another VPA was selected to install the efficient lighting. Working together, the VPAs reduced energy consumption and operating expenses for the dealership and helped Efficiency Smart meet its savings target in the community.

The Direct Assist initiative has provided additional opportunities for VPAs to complete projects and another way for communities to achieve energy savings in 2013. Through this initiative, Efficiency Smart worked with a grocery store in Grafton, Ohio, with the assistance of a VPA, to complete energy efficiency upgrades. The store had only limited resources to invest in energy savings upgrades, and Efficiency Smart's higher-than-typical rebate allowed it to move forward with a project. This created additional business for a VPA and resulted in significant energy savings for the community.

In total, VPAs completed projects in 23 communities in 2013, resulting in 8,113 megawatt-hours (MWh) of savings.

VPAS That Completed Projects in Two or More Communities in 2013

VPA	Communities
APO Pumps and Compressors, Inc.	Brewster, Newton Falls
Buschur Electric, Inc.	Minster, New Bremen
Dickman Supply	New Bremen, Versailles
Energy Efficient Lighting	Cuyahoga Falls, Wadsworth
Energy Optimizers, USA	Arcanum, Jackson
JS Lighting Solutions, LLC	Bowling Green, Napoleon
Lighting Services, Inc.	Cleveland, Cuyahoga Falls, Hudson, Niles
McGranahan Associates, Inc.	Cleveland, Cuyahoga Falls, Grafton, Oberlin
PearlWind, LLC	Cleveland, Cuyahoga Falls, Wadsworth
RealWinWin, Inc.	Amherst, Cleveland, Columbiana, Cuyahoga Falls
US Illuminations, LLC	Cuyahoga Falls, Hudson
Wolff Bros. Supply Inc.	Cuyahoga Falls, Lodi, Orrville

RESIDENTIAL > > > PROGRAM

There are a number of steps homeowners and renters can take to reduce their energy usage, save money on electric bills, and make their homes more comfortable. In 2013, Efficiency Smart helped residential customers of participating municipal electric systems take advantage of these opportunities through four main initiatives: retail efficient lighting, efficient product rebates, appliance recycling, and electric meter loans.

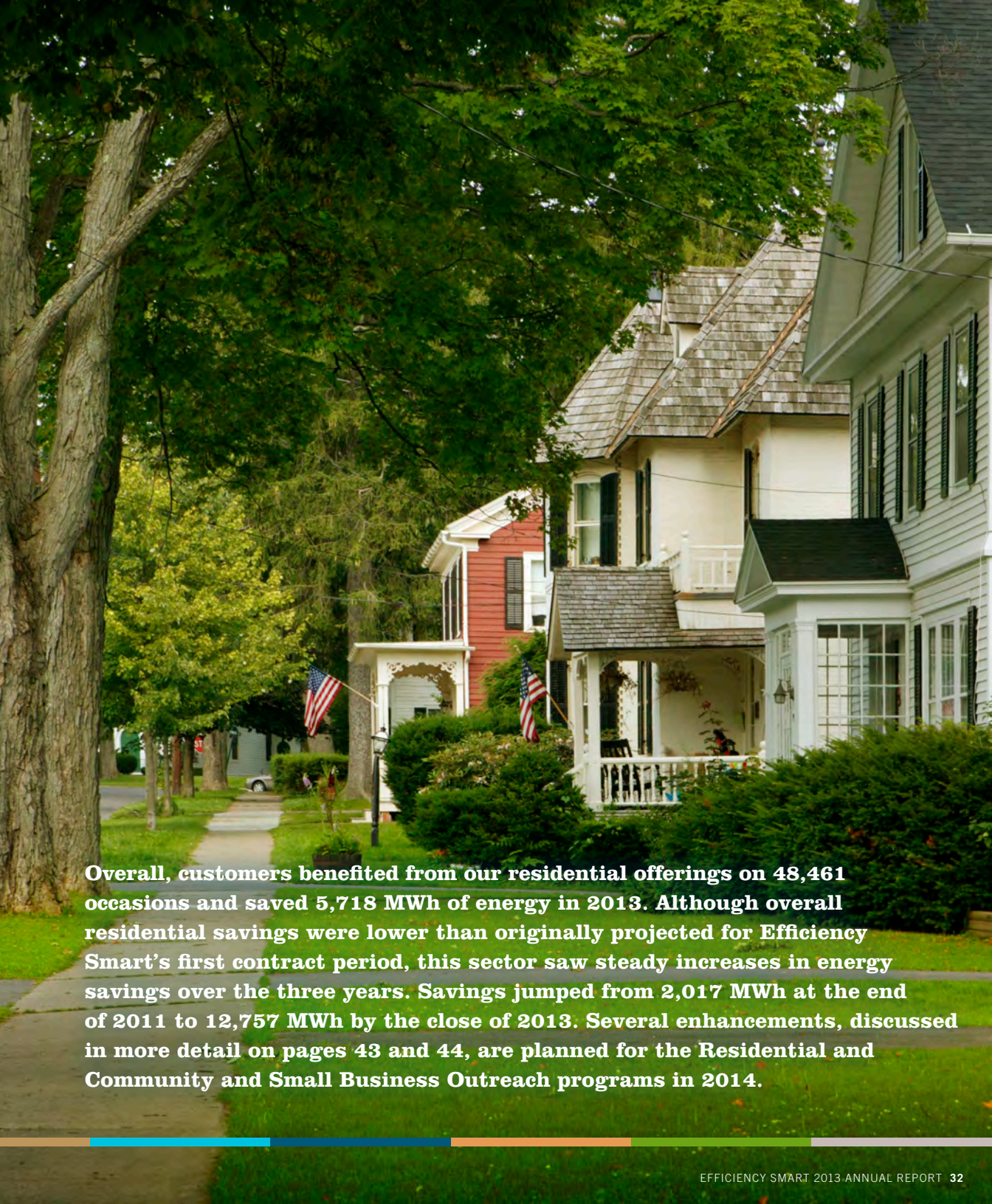
One of the easiest and most affordable ways residents can reduce their energy consumption is by replacing incandescent light bulbs with more efficient lighting. To assist with this effort, we offered point of sale (POS) lighting campaigns, an online lighting store, and a variety of events to help residential customers switch to compact fluorescent light bulbs (CFLs). During 2013, customers purchased 19,308 CFLs through our online lighting store and POS campaigns. An additional 93,953 CFLs were distributed through activities such as community outreach and incandescent trade-in events. In total, 3,618 megawatt-hours (MWh) of energy were saved in 2013 as a result of our efficient lighting promotions.

At the end of 2013, Efficiency Smart piloted its first light-emitting diode (LED) POS campaign in three communities; results will be reported in 2014. We also introduced LEDs through our online lighting store at the beginning of 2014. These efforts offer residents more variety in efficient lighting upgrades and present an opportunity for participating communities to accrue greater savings.

A new rebate for single and variable speed pool pumps was launched in 2013, bringing the total number of residential rebate options to seven. In addition to pool pumps, Efficiency Smart offered rebates for refrigerators, clothes washers, dehumidifiers, heat pump water heaters, ceiling fans with lights, and furnace fans with electronically commutated motors (ECMs). Financial incentives ranged from $15 to $250 for customers who purchased qualifying products for their home. Customers also had the option to request four free CFLs on their rebate form, which provided another money- and energy-saving opportunity. Residential customers redeemed rebates for 1,124 products in 2013, resulting in 287 MWh of energy savings.

Another way that residential customers made their homes more energy-efficient in 2013 was by recycling old, inefficient refrigerators and freezers. Efficiency Smart offered customers a $50 incentive as well as free pickup and recycling for these appliances. All units are removed and responsibly recycled by our appliance recycling contractor, JACO Environmental. In 2013, customers at 926 residences took advantage of our appliance recycling initiative, reducing their energy consumption by 1,813 MWh.

Efficiency Smart also offered a residential meter loan service to help educate customers about the biggest energy users in their home. Although savings weren't claimed directly, this service encouraged residents to make smart choices regarding energy efficiency upgrades by measuring how much energy their appliances used. When a free meter was requested, each customer also received an electrical usage chart so that they could see how quickly energy costs increase as a result of inefficient products. During 2013, 16 meters were loaned through this service.



Overall, customers benefited from our residential offerings on 48,461 occasions and saved 5,718 MWh of energy in 2013. Although overall residential savings were lower than originally projected for Efficiency Smart's first contract period, this sector saw steady increases in energy savings over the three years. Savings jumped from 2,017 MWh at the end of 2011 to 12,757 MWh by the close of 2013. Several enhancements, discussed in more detail on pages 43 and 44, are planned for the Residential and Community and Small Business Outreach programs in 2014.

Oldest Fridge Contest

> > > RESIDENTIAL HIGHLIGHT

Efficiency Smart joined several utilities to promote the Oldest Refrigerator in Ohio contest between May 1, 2013, and July 31, 2013. The contest was part of a statewide effort to encourage appliance recycling.

Adolph Thomay, a Cleveland Public Power customer, recycled a 1934 General Electric refrigerator, which was declared the oldest refrigerator among Efficiency Smart's participating electric systems in Ohio. Thomay won $250, and his appliance went on to compete for the Ohio's Oldest Refrigerator award. At the statewide level, two 1930 refrigerators tied for the title of Ohio's oldest fridge, and their owners each received the $1,000 grand prize.

> **"It was time to retire the fridge, make some money, and save on my electric bills, I appreciate the recycling program—especially what it offers senior citizens—and hope other people also take advantage of it."**
>
> ***Adolph Thomay, Residential Customer***
> ***Cleveland, Ohio***

All units picked up were transported to advanced recycling facilities in Ohio operated by Efficiency Smart's appliance recycling contractor, Jaco Environmental. The standard $50 incentive was also given for all units recycled during the three-month period.

The contest successfully promoted Efficiency Smart's appliance recycling initiative. During the time frame, an average of 148 refrigerators and freezers were recycled per month from the Ohio participating communities. This is more than double the average of 62 units recycled across all Efficiency Smart communities during the remaining nine months of 2013.

Nearly 50 percent of all units recycled in 2013 were recycled during the contest period. In total, 34 communities recycled 443 appliances during that time, resulting in 785 megawatt-hours (MWh) of savings for participating communities.

Giving Watts of Thanks

> > > RESIDENTIAL HIGHLIGHT

Efficiency Smart launched its social media presence in 2013 as another way to engage end-use customers and share information to help them save energy and money. Community event information, program offerings, and energy-saving tips were regularly provided through Facebook and Twitter.

To increase awareness of the social media channels, Efficiency Smart ran the "Giving Watts of Thanks" promotion in November, which allowed customers of participating municipal electric systems who "liked" its Facebook page to fill out a form to receive four free compact fluorescent light bulbs (CFLs). During the monthlong promotion, 338 customers in 26 communities filled out requests and received free CFLs.

By participating in the promotion, customers were able to immediately see the value of connecting with Efficiency Smart through its social media channels. In addition to receiving energy savings from the CFLs, many customers remain engaged and continue to benefit from relevant content focused on saving energy and money.

As a result of the promotion, customers received 1,352 free CFLs and participating communities benefited from 39 megawatt-hours (MWh) of energy savings.

COMMUNITY & > > > SMALL BUSINESS OUTREACH PROGRAM

Efficiency Smart's Community and Small Business Outreach (CSBO) program addresses the unique needs of its diverse communities and ensures that end-use customers have ample opportunities to benefit from energy efficiency. The program encompasses several energy efficiency initiatives, including:

- Assistance for landlords and tenants of multifamily properties with four or more units
- Collaboration with colleges, universities, and K–12 education programs
- Partnerships with community groups
- Support for small businesses that use less than 20,000 kilowatt-hours (kWh) of electricity annually
- Assistance for financially vulnerable populations
- Diversification of contractor and vendor partnerships
- Local outreach activities for residential customers

These community-centered activities have been successful in raising awareness of Efficiency Smart, achieving energy savings for participating municipal electric utilities and their customers, and promoting overall energy efficiency. Core focuses of the CSBO program are facilitating local community development and providing additional assistance to those who might not have the resources to complete energy efficiency upgrades on their own, such as small business owners, financially vulnerable customers, and the elderly.

Several criteria are used to evaluate the most effective method to deliver the CSBO program in each community, such as the percentage of people who pay their bills in person, patronage of local hardware stores, and census data. In 2013, we developed ample partnerships throughout our participating communities to maximize community involvement and interaction.

MENDON, OHIO

BOWLING GREEN, OHIO

> > > 2013 CSBO INITIATIVES

Multifamily Initiative

Assists building owners, landlords, and building managers in decreasing operating costs and helps building tenants lower their cost of living and increase their comfort. The initiative provides:

- Building energy assessments to examine multifamily structure's overall performance
- Projected energy savings calculations to show the potential return on investment for energy efficiency projects
- Direct installation of compact fluorescent light bulbs (CFLs) at no cost
- Discounts on lighting upgrades, occupancy sensors, programmable thermostats, and ENERGY STAR® qualified appliances
- Financial incentives for installing other products qualified through Efficiency Smart's Business Energy Rebates program or Custom program

In 2013, we completed multifamily direct installs, building energy assessments, and tenant outreach at facilities in Cleveland, Ohio; Jackson, Ohio; and Wadsworth, Ohio.

Education Outreach

Education-based initiatives focused on introducing energy efficiency concepts at the K–12 and college level and reducing energy efficiency market barriers through general education.

Community Group Partnerships

In line with our commitment to support local economies, we use and support local groups to help implement CSBO activities. Collaboration with community groups not only provides a local base of volunteers, but also helps ensure lower costs for participants.

Small Business Outreach

Assists small business owners—who often operate with tight profit margins—in reducing their operating costs without large investments. The initiative provides:

- Building energy assessments to examine the facility's overall energy use and performance
- Projected energy savings calculations to show the potential return on investment for energy efficiency projects
- Direct installation of CFLs at no cost
- Discounts on lighting upgrades, occupancy sensors, and programmable thermostats
- Financial incentives for installing other products qualified through Efficiency Smart's Business Energy Rebates program or Custom program

In 2013, we completed small business direct installs in Custar, Ohio; Lucas, Ohio; and Mendon, Ohio.

Financially Vulnerable Population Outreach

Through collaboration with community organizations, we provide energy efficiency services, products, and education for those who may not have the resources to make their homes more energy-efficient. These efforts include partnerships with community development agencies, housing authorities, and community action agencies.

In 2013, we established partnerships with the Cuyahoga Metropolitan Housing Authority, Famicos Foundation, and the Council for Economic Opportunities in Greater Cleveland to aid in these efforts.

Supplier Diversity Initiative

Intentional diversification of Efficiency Smart's Vendor Partner Ally (VPA) initiative through the inclusion of women's business enterprises (WBEs) and minority business enterprises (MBEs). This initiative ensures that we operate in a manner that embraces and encourages economic inclusion in the marketplace and reflects the diversity of our participating communities. In 2013, we began recruiting WBEs and MBEs for our VPA initiative and will continue to focus on this in the future.

Community Events

Facilitate frequent interaction with end-use customers through local community activities. These events regularly include collaboration with local leaders, who assist in further establishing the benefits of energy efficiency with their constituents. In 2013, we completed 52 local outreach activities, which translated to 2,650 MWh of energy savings.


COLUMBIANA, OHIO

CUYAHOGA FALLS, OHIO

Incandescent Trade-in Events

Residents of participating communities can exchange their working incandescent light bulbs for an equivalent number of free CFLs during these events held at local hardware stores.

Community	Incandescent Bulbs Exchanged for CFLs	Net Savings Claimed
Amherst	731	27,855 kWh
Beach City	16	599 kWh
Cuyahoga Falls	845	29,589 kWh
Dover	369	14,051 kWh
Grafton	265	10,044 kWh
Hubbard	329	12,493 kWh
Mendon	780	24,311 kWh
Napoleon	153	5,830 kWh
Niles	27	1,029 kWh
Orrville	815	27,577 kWh
Prospect	57	2,128 kWh
Wellington	198	7,545 kWh

> > > 2013 LOCAL OUTREACH RESULTS BY ACTIVITY

Community Events

Efficiency Smart celebrates with its participating communities by distributing free CFLs, sharing information, and answering questions during local events.

Community Event	Free CFLs Distributed	Net Savings Claimed
Brewster Arts on the Boulevard	470	12,803 kWh
Bowling Green Classics on Main Car Show	1,085	29,560 kWh
Cleveland Power Expo	435	11,850 kWh
Cuyahoga Falls Energy Expo	1,364	37,169 kWh
Genoa Street Fair	3,100	84,444 kWh
Hudson Green on the Green Day	385	10,487 kWh
Oberlin Community & Culture Festival	285	7,764 kWh
Oberlin Family Fun Fair	715	19,477 kWh

Door-to-door Initiative

Staff, community officials, and volunteers go from house to house to distribute free CFLs, share information, and answer questions.

Community	Free CFLs Distributed	Net Savings Claimed
Beach City	2,118	79,601 kWh
Eldorado	1,440	47,088 kWh
Lucas	945	38,630 kWh
Milan	1,095	29,828 kWh

AMHERST, OHIO

LODI, OHIO


HUBBARD, OHIO


AMHERST, OHIO

Customer Appreciation Events

Free CFLs and kits with rebate forms, program information, and energy efficiency tips are distributed at local utility offices on key dates when residents typically pay their bill in person.

Community	Free CFLs Distributed	Net Savings Claimed
Amherst	14,758	402,141 kWh
Beach City	1,288	35,098 kWh
Bowling Green	3,245	88,394 kWh
Coldwater	3,210	97,169 kWh
Columbiana	2,380	64,847 kWh
Cuyahoga Falls	2,296	62,566 kWh
Dover	6,070	165,362 kWh
Elmore	530	14,437 kWh
Ephrata	2,100	57,219 kWh
Galion	3,385	92,240 kWh
Glouster	2,254	61,422 kWh
Grafton	945	25,742 kWh
Haskins	476	12,971 kWh
Hubbard	3,920	106,793 kWh
Jackson	5,794	157,881 kWh
Lodi	2,045	55,707 kWh
Napoleon	6,125	166,904 kWh
New Bremen	815	22,205 kWh
Oberlin	1,220	33,233 kWh
Pemberville	725	19,749 kWh
Prospect	2,485	67,715 kWh
Versailles	1,820	49,578 kWh
Wadsworth	8,045	219,148 kWh

CONTINUING >>>MOMENTUM

Efficiency Smart made substantial progress during its first contract period, decreasing end-use customers' energy consumption, and thereby reducing subscribing municipal utilities' electric load by an average of 1.75 percent.[1] Building on the success of our first three years of operation, we will continue to focus on expanding customers' awareness, understanding, and adoption of energy efficiency opportunities. We will also concentrate on our role as a technical consultant to further enhance savings and customer engagement.

Over the course of our first contract period, it became evident that there is a lasting demand for energy efficiency services in participating communities. To both meet this continuing demand and adapt to evolving energy efficiency technologies, Efficiency Smart's team regularly evaluates its energy efficiency offerings. In 2014, we will remain focused on achieving energy savings targets for all participating communities by enriching existing offerings and by incorporating several new items at the program level. Details about new and enhanced services planned in each area can be found under the program headings in this section.

GEORGETOWN, OHIO

[1] Electric load reduction calculated using the most recent sales data for subscribing municipal systems available at the time of first contract development. This energy sales data was the basis for first contract costs and savings goals.

In January 2014, Edgerton, Ohio; Georgetown, Ohio; New Wilmington, Pennsylvania; and Shelby, Ohio, became the newest communities to subscribe to Efficiency Smart's services. We look forward to assisting these new communities as well as our renewing participants with all their energy efficiency needs. Enrollment is now offered at several key times throughout the year, and we invite any electric utility, both inside and outside of AMP, interested in subscribing to contact Efficiency Smart about services available.

Custom Program

Efficiency Smart's Custom program will maintain a strong pipeline of project opportunities to guarantee energy savings well into the future. Rather than introducing new initiatives, we will augment current efforts by:

> Providing multiple project recommendations to businesses where numerous energy savings opportunities exists
> Identifying industries with high potential for significant energy savings across participating communities
> Increasing project metering to further validate savings claims
> Expanding our benchmarking efforts to help more organizations understand their facilities' energy use

Business Energy Rebates (BER) Program

The BER program will undergo modest updates in 2014. Although the items eligible for financial incentives will remain unchanged, some rebate amounts will be adjusted to reflect market standards.

Contractor and Vendor Outreach Program

Efficiency Smart's Contractor and Vendor Outreach program will continue to focus on qualifying supply chain professionals who meet established criteria as participants in its Vendor Partner Ally (VPA) initiative. Beginning in 2014, each VPA will receive a badge for use on its website and other marketing mediums to identify it as an Efficiency Smart ally. Participation is evaluated on a yearly basis, and badge colors will change annually to keep VPA recognition current.

We will also continue to collaborate with VPAs on direct installs and direct assists, to more strategically capture energy savings for businesses in participating communities.

Residential Program

Efficiency Smart's Residential program will experience significant enhancements in 2014 to provide residents with more options for making their home as efficient as possible. Residential program offerings recently launched, currently planned, or now under consideration:

> An enhanced online lighting store that includes:
  - Discounted light-emitting diodes (LEDs) in addition to compact fluorescent light bulbs (CFLs)
  - Free shipping on orders of $25 or more
  - Special promotions offering even greater efficient lighting discounts
  - Potential for additional discounted efficient product offerings
> In-store efficient lighting buy-downs to provide point-of-sale discounts for end-use customers
> Expanded lighting coupon campaigns that include category coupons such as a coupon for any ENERGY STAR® rated CFLs rather than just manufacturer-specific coupons
> A CFL bulb recycling initiative in partnership with participating utilities' offices
> Expansion of the appliance recycling initiative to include primary refrigerators and freezers in addition to secondary units
> Additional product options for appliance and equipment rebates
> Incentives for retailers to promote Efficiency Smart's product rebates and lighting discounts
> Energy efficiency presentations and demonstrations at local retailers
> A Home Performance Solutions collaboration with Columbia Gas to provide mutual customers the opportunity to have energy-efficient products installed during a home energy audit
> New home construction rebates designed to coincide with the three levels of ENERGY STAR rated homes, which will include preconstruction outreach through municipal development offices
> An innovative retail point-of-sale initiative that could revolutionize the way residential rebate programs are structured

Several of the above options will be tested through pilot initiatives and, if successful, will be implemented on a larger scale in the future.

Community and Small Business Outreach (CSBO) Program

Efficiency Smart's CSBO program will undergo several improvements in 2014 to further support residential initiatives. Additionally, several enhancements will be made to increase small business opportunities, to strengthen community and vendor partnerships, and to expand educational outreach. CSBO activities recently launched, currently planned, or now under consideration:

- Piloting free week-long summer camps for students entering fourth through sixth grade. The "Super Energy Heroes Summer Camp" will introduce energy concepts and conservation strategies aligned with the National Science Education Standards and the Ohio Department of Education Science Standards.
- Increasing relationships with community groups, such as community action agencies, housing authorities, and other community-centered groups, to help support outreach efforts and make energy efficiency more accessible to financially vulnerable populations.
- Recruiting women's business enterprises (WBEs) and minority business enterprises (MBEs) for Efficiency Smart's VPA initiative to foster more diverse contractor and vendor partnerships.
- Introducing LED coupons at CSBO activities in communities where market data indicates there is a high level of CFL penetration.
- Incorporating more educational outreach at events to help the end-use customers better understand energy efficiency and Efficiency Smart's services.
- Offering smaller businesses a rebate form and a catalog of discounted energy-efficient lighting, appliances, and equipment, with order fulfillment through a major home improvement retailer.
- Partnering with colleges and universities to implement initiatives in collaboration with student groups, and offering free or heavily discounted energy-efficient products to student residence facilities, housing agencies, and students in homes served by a subscribing municipal electric system.

Introducing Efficiency Smart's newest members, the

"$MART TEAM!"

Watch for guest appearances by this group of characters at summer camps, community events, and in promotional pieces. Each character embodies elements of Efficiency Smart's brand personality and plays different but overlapping roles such as a technical expert and a community outreach guide.

EFFICIENCY SMART RESULTS
> > > 2011-2013 CONTRACT

The numbers are in and the word is out. Efficiency Smart is an excellent value. Its first contract period yielded substantial savings for participating municipal electric systems and their customers, helping them to save electricity and money through improved energy efficiency, now and in the future.

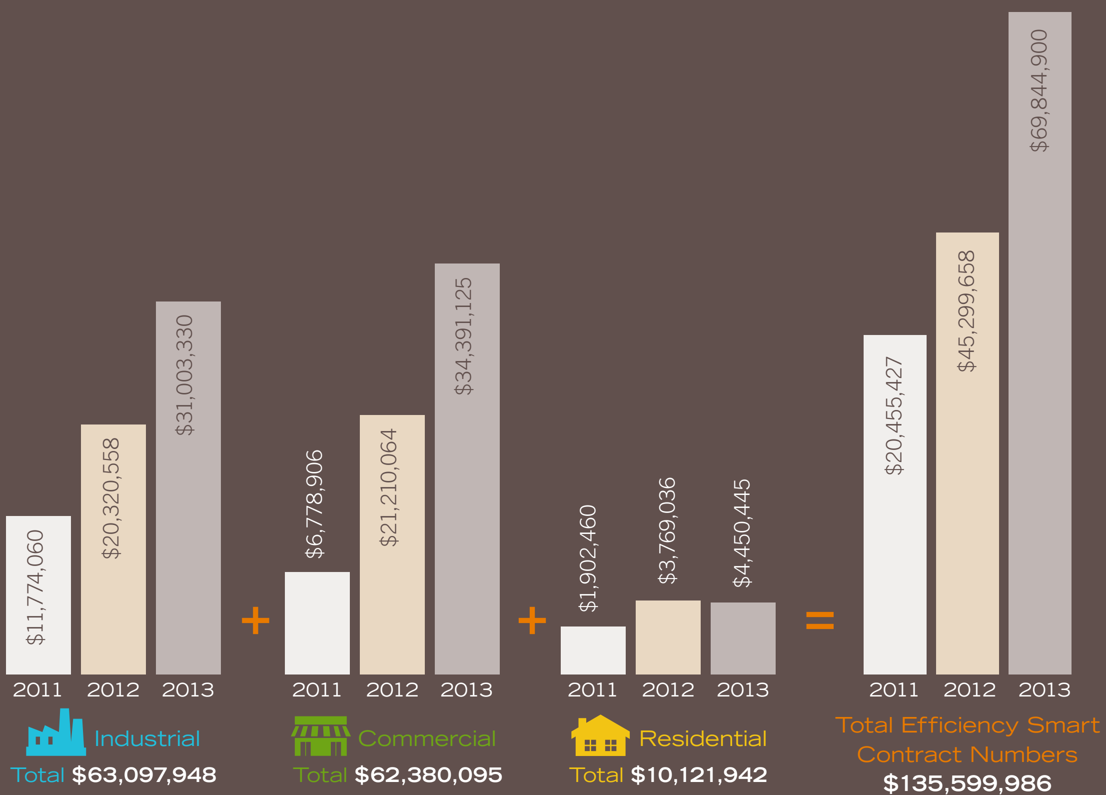
Annual MWh Savings

2011	10,262 MWh	5,470 MWh	2,017 MWh	17,748 MWh
2012	18,595 MWh	18,464 MWh	5,023 MWh	42,082 MWh
2013	27,398 MWh	28,394 MWh	5,718 MWh	61,509 MWh

Lifetime MWh Savings

2011	131,664 MWh	85,562 MWh	23,625 MWh	240,851 MWh
2012	229,136 MWh	197,125 MWh	39,993 MWh	466,254 MWh
2013	359,803 MWh	310,898 MWh	41,295 MWh	711,996 MWh

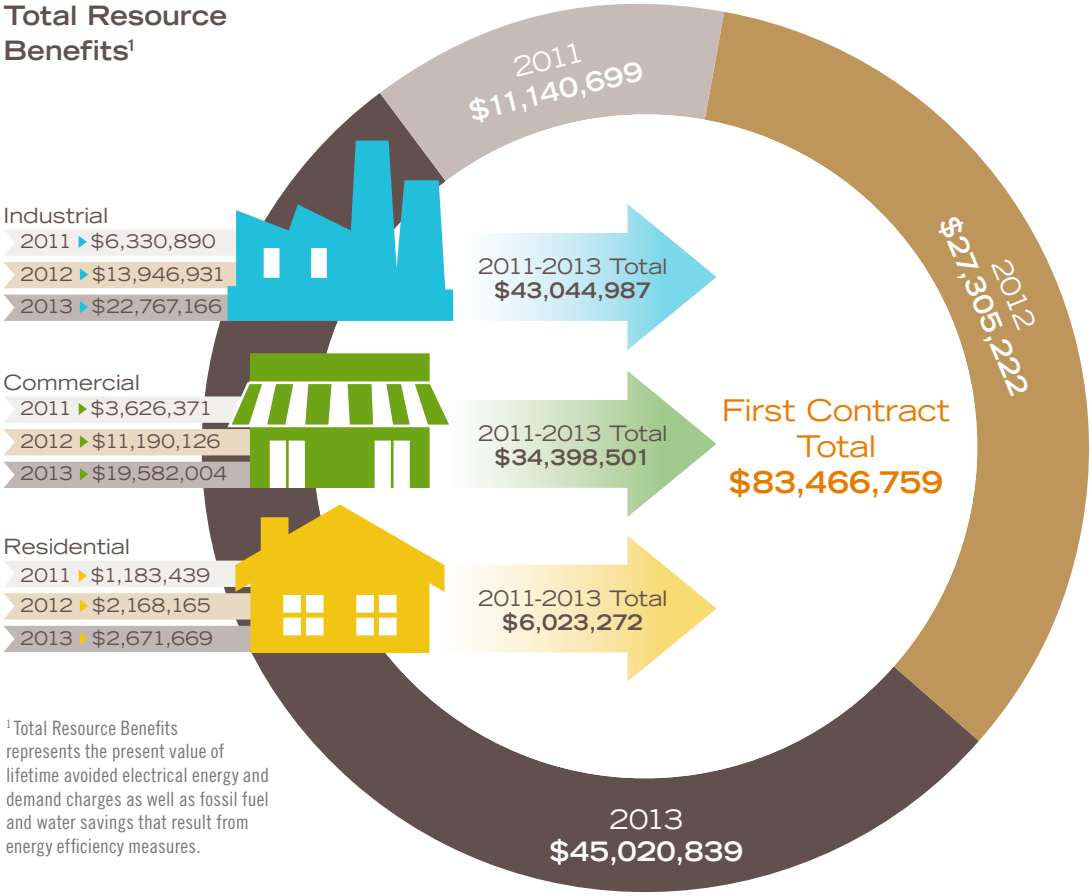
Lifetime Customer Savings ($)



Coincident Peak Kilowatt Savings (⚡ = 200kW)

	Industrial	Commercial	Residential	Efficiency Smart Total
2011	⚡⚡⚡⚡⚡⚡	⚡⚡⚡⚡⚡	⚡	2,636 kW
2012	⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡	⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡	⚡⚡⚡	6,654 kW
2013	⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡	⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡⚡	⚡⚡⚡⚡	10,222 kW
Total	7,909 kW	9,910 kW	1,693 kW	19,512 kW

Total Resource Benefits[1]

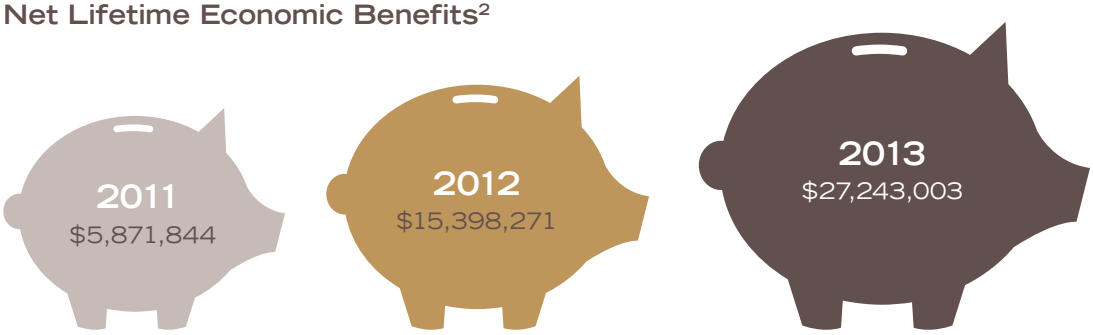


[1] Total Resource Benefits represents the present value of lifetime avoided electrical energy and demand charges as well as fossil fuel and water savings that result from energy efficiency measures.

Aggregate Benefits by Year

	Total Resource Benefits ÷	Total Program Costs Paid by Participants =	Benefit-to-Cost Ratio
2011	$11,140,699	$3,219,740	3.46:1
2012	$27,305,223	$9,055,306	3.02:1
2013	$45,020,839	$13,349,963	3.37:1

Net Lifetime Economic Benefits[2]



[2] Net Lifetime Economic Benefits is equal to Total Resource Benefits plus operation and maintenance savings, minus the cost paid by Efficiency Smart to operate the program and the implementation cost paid by participants.

Efficiency Smart Expenditures

	2011	2012	2013
Industrial	$1,249,015	$2,052,911	$2,567,347
Commercial	$1,059,783	$2,047,942	$3,019,135
Residential	$1,396,123	$1,650,987	$2,627,131
Efficiency Smart Total	$3,704,921	$5,751,840	$8,213,613

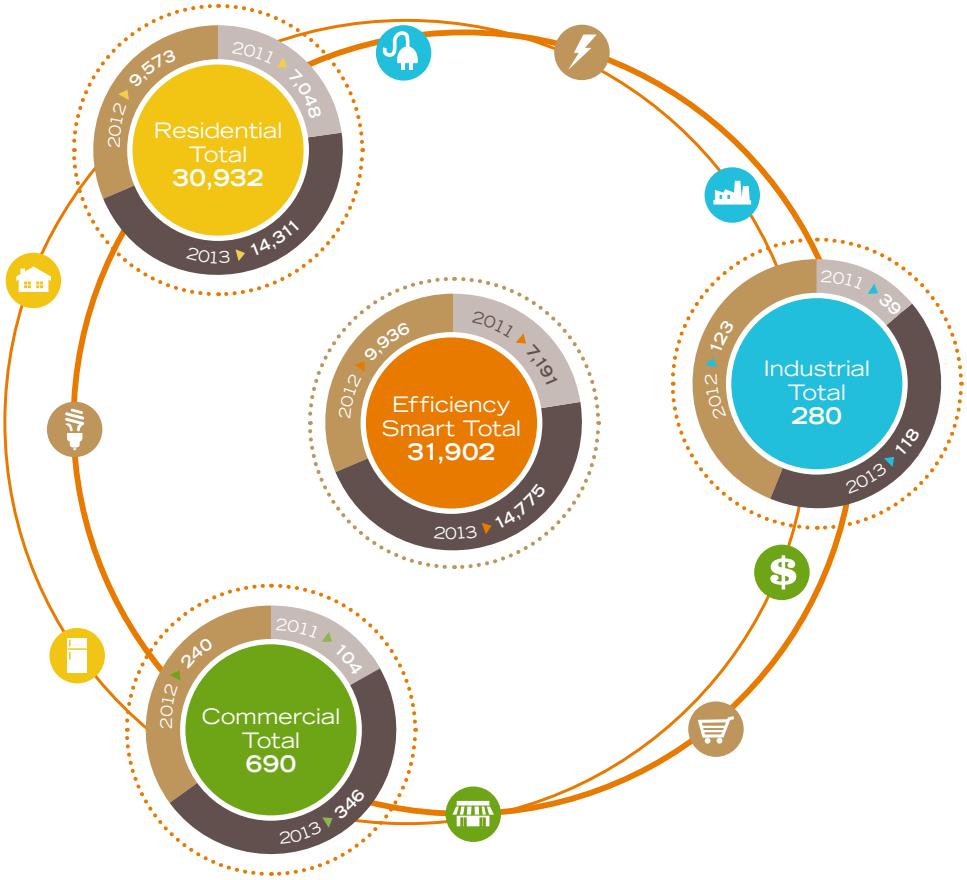
Total Efficiency Smart Budget ($24,641,695) – Total Efficiency Smart Expenditures ($17,670,374) = Amount Under Budget ($6,971,321 or 28% Unspent)

AMP Expenditures

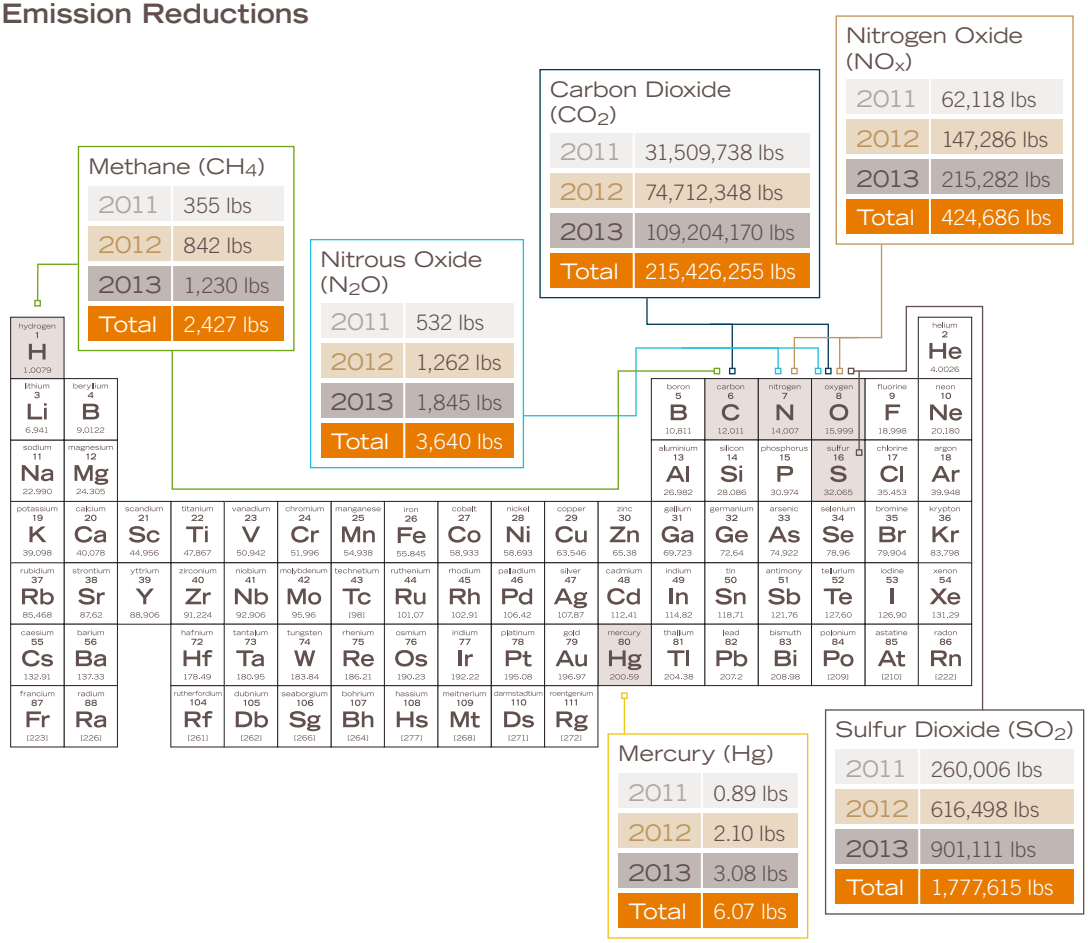
	2011	2012	2013
AMP Total	$391,853	$708,036	$966,099

Total AMP Budget ($2,161,360) – Total AMP Expenditures ($2,065,988) = Amount Under Budget ($95,372 or 4% Unspent)

Project Completions



Emission Reductions



SAVING ENERGY. SAVING MONEY.

EMPOWERING 49 > > > COMMMUNITIES

2011-2013 CONTRACT RESULTS

AMHERST, OHIO

Residential Products Installed **20,838**

Residential Energy Savings **830 MWh**

Commercial and Industrial Products Installed **1,903**

Commercial and Industrial Energy Savings **586 MWh**

Lifetime Energy Savings **10,638 MWh**

Annual Savings Achieved **1,416 MWh**

Energy Savings Target **1,313 MWh**

Actual Savings vs. Target Savings **108%**

Annual Customer Savings **$121,699**

Lifetime Customer Savings **$1,279,099**

Companies that Completed Projects **11**

Residential Rebates Redeemed **116**

Free CFLs Distributed **18,192**

2011-2013 CONTRACT RESULTS

ARCANUM, OHIO

Residential Products Installed **1,902**

Residential Energy Savings **119 MWh**

Commercial and Industrial Products Installed **569**

Commericial and Industrial Energy Savings **133 MWh**

Lifetime Energy Savings **2,100 MWh**

Annual Savings Achieved **252 MWh**

Energy Savings Target **265 MWh**

Actual Savings vs. Target Savings **95%**

Annual Customer Savings **$22,517**

Lifetime Customer Savings **$224,092**

2011-2013 CONTRACT RESULTS

BEACH CITY, OHIO

Residential Products Installed **5,632**

Residential Energy Savings **196 MWh**

Commercial and Industrial Products Installed **22**

Commericial and Industrial Energy Savings **9 MWh**

Lifetime Energy Savings **1,576 MWh**

Annual Savings Achieved **204 MWh**

Energy Savings Target **188 MWh**

Actual Savings vs. Target Savings **109%**

Annual Customer Savings **$17,573**

Lifetime Customer Savings **$141,109**

CO_2 Reduction **310,121 pounds**

Discounted CFLs Purchased **931**

Emission Savings **29.6 Cars**

LUCAS MARKET

BEACH CITY, OHIO

Efficient Lighting Project

Lucas Market is a convenience store located in Beach City, Ohio. In business since 2001, the store has become a staple of the community, providing a quick and easy stop to meet the needs of local families.

PROJECT GOALS: Reduce energy consumption and improve lighting.

SOLUTION: Replace outdated T12 lighting fixtures with upgraded lighting technology throughout the store.

PROJECT SUMMARY: In 2013, Lucas Market completed an efficient lighting project, replacing 22 T12 light fixtures with T8 fixtures throughout the convenience store. After submitting a single form, the company was able to apply for lighting rebates through Efficiency Smart's Business Energy Rebates program.

Lucas Market reduced the overall expense of the project with the financial incentive it received from Efficiency Smart. As a result of the installed lighting, the company lowered its energy consumption and costs. In addition, the new fixtures improved the lighting quality at the store, improving the shopping experience for its customers.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
11,600

Annual Cost Savings:
$1,300

Lifetime Cost Savings:
$19,900

Payback:
0.43 years

Annual CO_2 Reduction:
22,300 pounds

PROJECT PARTNERS

Tammy Lucas, Manager and Owner, Lucas Market

Terry Madden, Former Village Administrator, Village of Beach City

Dan Preising, Village Administrator, Village of Beach City

2011-2013 CONTRACT RESULTS

BOWLING GREEN, OHIO

Residential Products Installed **11,358**

Residential Energy Savings **611 MWh**

Commercial and Industrial Products Installed **20,560**

Commericial and Industrial Energy Savings **16,260 MWh**

Lifetime Energy Savings **214,414 MWh**

Annual Savings Achieved **16,871 MWh**

Energy Savings Target **6,651 MWh**

Actual Savings vs. Target Savings **254%**

Annual Customer Savings **$1,358,525**

Lifetime Customer Savings **$19,078,643**

"Efficiency Smart is one of the best tools I have for economic development. Its staff is responsive, diligent, and works hard to save businesses in Bowling Green energy and money."

SUZANNE CLARK

Executive Director, Bowling Green Community Development Foundation

Bowling Green, Ohio

COOPER STANDARD

BOWLING GREEN, OHIO

Efficient Lighting Project

Cooper Standard is a leading global supplier of systems and components for the automotive industry. Established in 1960, the company operates in 19 countries and has more than 22,000 employees. Cooper Standard actively explores and implements new ways to enhance manufacturing processes, enabling increased recyclability and reducing company emissions.

PROJECT GOALS: Reduce energy consumption and improve employee safety.

SOLUTION: Replace outdated metal halide fixtures with new efficient lighting and install occupancy sensors.

PROJECT SUMMARY: In line with its commitment to sustainability, Cooper Standard completed a lighting project at its facility in Bowling Green that resulted in significant energy savings. Working with Contemporary Energy Solutions for lighting design and Next Watt Lighting for installation, the company replaced more than 600 metal halide fixtures with high-performance T8 (HPT8) fixtures throughout the facility, and installed occupancy sensors in low-traffic areas of the warehouse.

Efficiency Smart worked with Cooper Standard's vendors to provide an independent savings analysis of the project. The new fixtures improved lighting quality at the facility, providing a safer environment for employees. In addition, the company later removed excess metal halide fixtures, made unnecessary thanks to the improved lighting installed.

> "The team at Efficiency Smart was very helpful during our lighting project. Staff members visited our plant to review the project scope and provided additional energy savings ideas for us to consider. The transition was seamless, and the plant is now brighter and safer. We are very pleased with the great service and follow-up from everyone at Efficiency Smart."
>
> ***Robert Huey, Plant Manager, Cooper Standard***

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
1,291,600

Annual Cost Savings:
$96,800

Lifetime Cost Savings:
$1,440,400

Payback:
1.23 years

Annual CO_2 Reduction:
2,472,400 pounds

PROJECT PARTNERS

Robert Huey, Plant Manager, Cooper Standard

Michael Hogan, Electrical Project Engineer, Cooper Standard

Modesty Vlastelica, Operations Manager, Contemporary Energy Solutions

Tony Vlastelica, Principal, Contemporary Energy Solutions

Dennis Thomann, President, Next Watt Lighting

Patty Sturtz, Rebate Management/Sales Support, Orion Energy Systems

Brian P. O'Connell, P.E., Utilities Director, City of Bowling Green

2011-2013 CONTRACT RESULTS

BRADNER, OHIO

Residential Products Installed **388**

Residential Energy Savings **17 MWh**

Commercial and Industrial Products Installed **232**

Commericial and Industrial Energy Savings **114 MWh**

Lifetime Energy Savings **1,523 MWh**

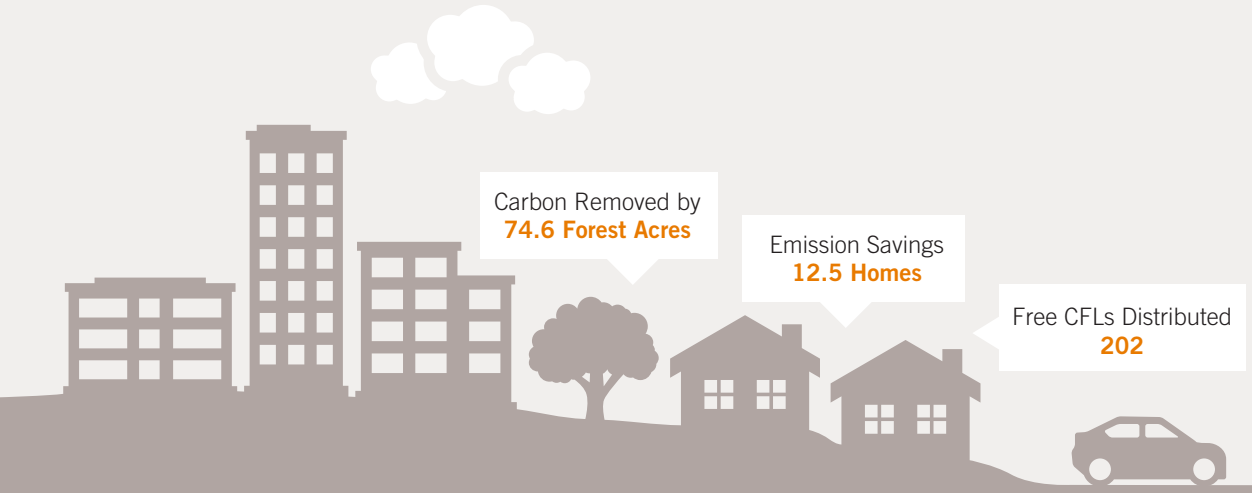
Annual Savings Achieved **132 MWh**

Energy Savings Target **57 MWh**

Actual Savings vs. Target Savings **232%**

Annual Customer Savings **$13,013**

Lifetime Customer Savings **$196,844**



2011-2013 CONTRACT RESULTS

BREWSTER, OHIO

Residential Products Installed **4,497**

Residential Energy Savings **163 MWh**

Commercial and Industrial Products Installed **716**

Commericial and Industrial Energy Savings **1,058 MWh**

Lifetime Energy Savings **12,985 MWh**

Annual Savings Achieved **1,221 MWh**

Energy Savings Target **688 MWh**

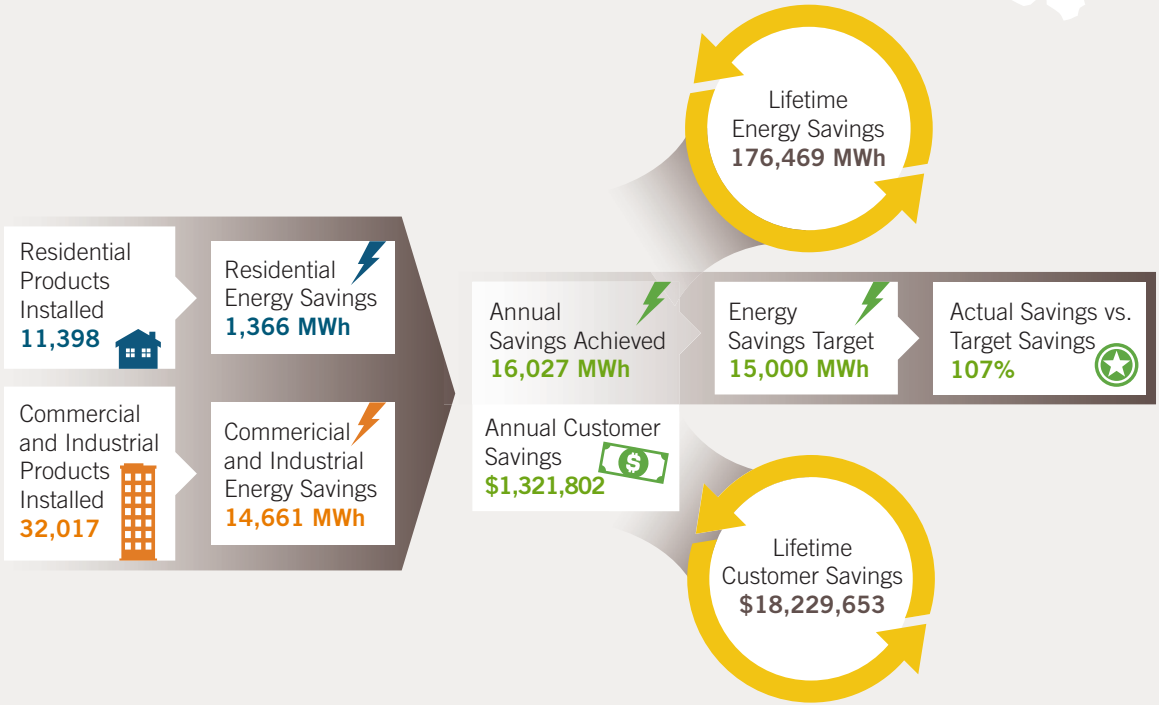
Actual Savings vs. Target Savings **178%**

Annual Customer Savings **$91,439**

Lifetime Customer Savings **$1,148,426**

2011-2013 CONTRACT RESULTS

CLEVELAND, OHIO



"An Efficiency Smart energy consultant recommended efficient features that helped us build and equip our shops as sustainably as possible. The guidance we received will save us tens of thousands of dollars over the life of our investments, and we even received financial incentives for following the expert recommendations. Without the help of Efficiency Smart, we would have missed many cost-saving opportunities."

MIKE MITCHELL
Owner, Mitchell's Homemade Ice Cream
Cleveland, Ohio

FAMICOS FOUNDATION

CLEVELAND, OHIO

Efficient Lighting and Heating, Ventilation, and Air Conditioning (HVAC) Project

Famicos Foundation is a nonprofit community development corporation that develops housing and provides social services. Through resident services and neighborhood outreach, the organization helps families achieve home ownership, prevents homelessness, reaches educational benchmarks, and keeps youth engaged in positive activities such as "learn and earn" experiences.

> "Our experience with Efficiency Smart has been fantastic. The technical advice was very helpful and the inspection process was quick and easy. The benefits go beyond the rebate, as the big payback is the reduced electrical consumption on the long-term operations of our building."

Michael Bier, Project Manager, Famicos Foundation

PROJECT GOALS: Reduce energy consumption at University Tower, a U.S. Department of Housing and Urban Development (HUD)–subsidized apartment building.

SOLUTION: Update the HVAC system and install efficient lighting at the apartment building.

PROJECT SUMMARY: In line with its focus on reducing costs and providing affordable housing, Famicos Foundation has worked with Efficiency Smart to complete three energy efficiency projects. Famicos most recently worked with Efficiency Smart in 2013 to complete an efficient lighting and HVAC project at its University Tower apartment building. The existing HVAC system and window air-conditioning units were replaced with a new efficient system, utilizing heat pumps and a water source piping loop. In addition, hot water pumps and supply fans were equipped with variable frequency drives (VFDs).

Compact fluorescent fixtures were installed in the first-floor corridors, along with high-performance T8 (HPT8) lighting fixtures in the basement, first-floor storage areas, roof, offices, fitness center, community rooms, and laundry rooms. Exterior light-emitting diode (LED) fixtures and LED exit signs were installed, and incandescent light bulbs were replaced with compact fluorescent light bulbs (CFLs) in all residential suites.

Through Cleveland Public Power's participation in Efficiency Smart, Famicos benefited from an Efficiency Smart energy consultant who worked with the foundation to review the project and validate energy savings potential. As a result, Famicos was able to reduce energy consumption significantly, and the new HVAC system and lights are expected to improve the living conditions of residents at the apartment building.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
799,300

Annual Cost Savings:
$65,200

Lifetime Cost Savings:
$914,000

Payback:
1.98 years

Annual CO_2 Reduction:
1,575,900 pounds

PROJECT PARTNERS

John Anoliefo, Executive Director, Famicos Foundation

Michael Bier, Project Manager, Famicos Foundation

Ivan Henderson, Commissioner, Cleveland Public Power

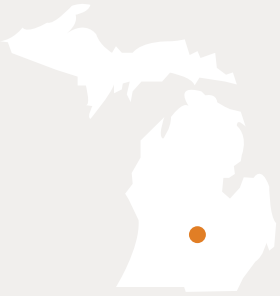
Barbara Phillips, Project Coordinator, Cleveland Public Power

Joy Perry, Deputy Commissioner, Cleveland Public Power

Deborah Prince, Commercial Accounts Manager, Cleveland Public Power

Bill Williams, Commercial Accounts Manager, Cleveland Public Power

Christine Leyda, Assistant Commissioner, Sales and Marketing, Cleveland Public Power



2011-2013 CONTRACT RESULTS

COLDWATER, MICHIGAN

Residential Products Installed **5,676**

Residential Energy Savings **341 MWh**

Commercial and Industrial Products Installed **3,556**

Commercial and Industrial Energy Savings **3,553 MWh**

Lifetime Energy Savings **41,884 MWh**

Annual Savings Achieved **3,893 MWh**

Energy Savings Target **5,179 MWh**

Actual Savings vs. Target Savings **75%**

Annual Customer Savings **$319,912**

Lifetime Customer Savings **$4,468,969**

> "Efficiency Smart's team has exceeded my expectations with their sound recommendations. The staff kept us from spending money on a project that would not have generated savings, and has also pointed out cost-effective and efficient measures that will save us energy and money."

ERIC HARRISON
President, Soapy Joe's
Coldwater, Michigan

2011-2013 CONTRACT RESULTS

COLUMBIANA, OHIO

Residential Products Installed **4,256**

Residential Energys Savings **215 MWh**

Commercial and Industrial Products Installed **1,482**

Commericial and Industrial Energy Savings **1,033 MWh**

Lifetime Energy Savings **13,518 MWh**

Annual Savings Achieved **1,248 MWh**

Energy Savings Target **847 MWh**

Actual Savings vs. Target Savings **147%**

Annual Customer Savings **$101,202**

Lifetime Customer Savings **$1,377,221**

2011-2013 CONTRACT RESULTS

COLUMBUS, OHIO

Residential Products Installed **N/A***

Residential Energy Savings **N/A***

Commercial and Industrial Products Installed **12,353**

Commercial and Industrial Energy Savings **5,398 MWh**

*The City of Columbus only participated in commercial and industrial services.

Lifetime Energy Savings **56,499 MWh**

Annual Savings Achieved **5,398 MWh**

Energy Savings Target **3,632 MWh**

Actual Savings vs. Target Savings **149%**

Annual Customer Savings **$481,285**

Lifetime Customer Savings **$6,904,644**

> "Working with Efficiency Smart really enhanced the incentive to make our building as efficient as possible. Not only was there a clear value in our project and energy costs, but the real benefit comes from taking this experience and knowledge to our clients so they can maximize their energy savings and rebates."

KYLE ROONEY

Vice President and General Manager, Turner Construction Company

Columbus, Ohio

2011-2013 CONTRACT RESULTS

CUSTAR,
OHIO

Residential Products Installed **418**

Residential Energy Savings **15 MWh**

Commercial and Industrial Products Installed **33**

Commericial and Industrial Energy Savings **7 MWh**

Lifetime Energy Savings **158 MWh**

Annual Savings Achieved **23 MWh**

Energy Savings Target **32 MWh**

Actual Savings vs. Target Savings **71%**

Annual Customer Savings **$2,514**

Lifetime Customer Savings **$12,431**

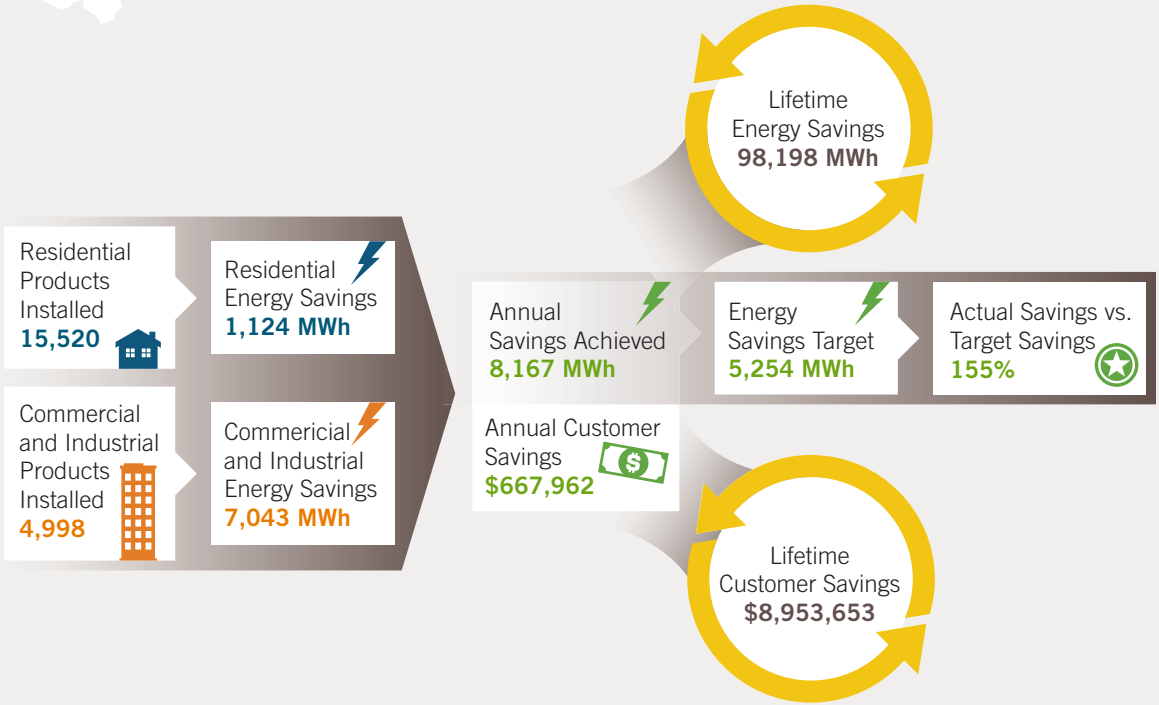
CO_2 Reduction **34,965 pounds**

Carbon Removed by **13 Forest Acres**

Discounted CFLs Purchased **188**

2011-2013 CONTRACT RESULTS

CUYAHOGA FALLS, OHIO



"We are always looking to improve energy and production efficiencies. Efficiency Smart provided guidance and handled all the details required to complete our project. The staff's expertise made the process quick and allowed us to spend a minimal amount of time on the project."

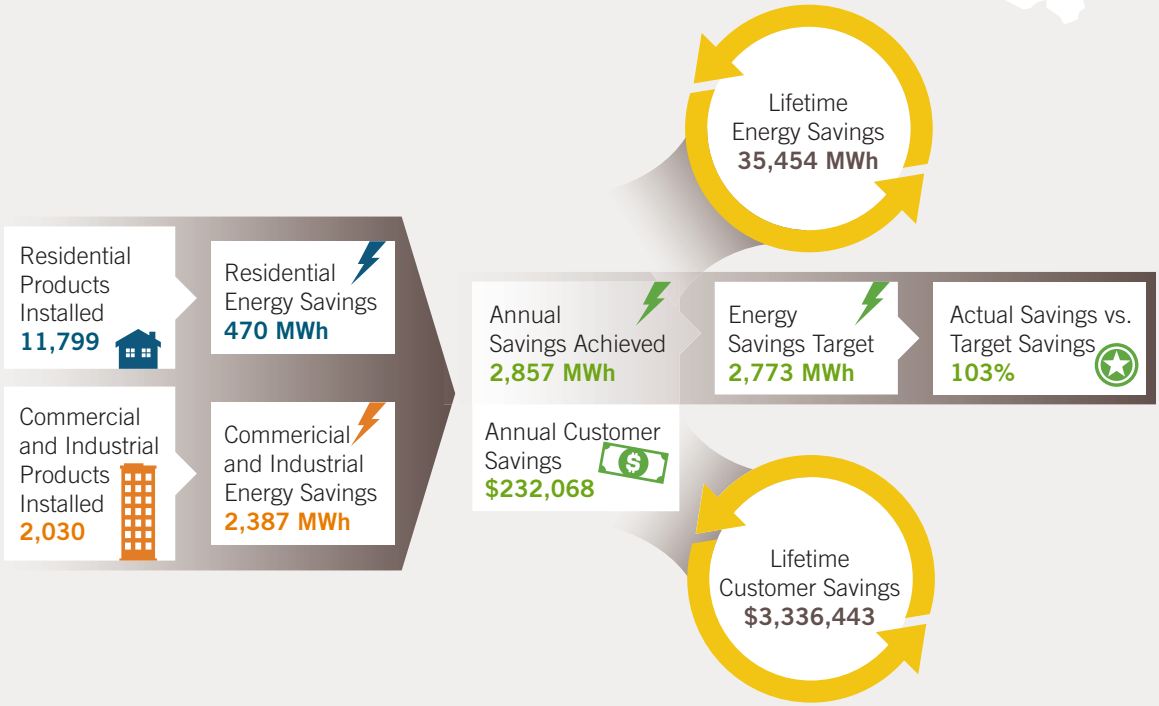
RAY GIBSON

CPMM, Mechanical Engineer / Maintenance Manager, SGS Tool Co.

Cuyahoga Falls, Ohio

2011-2013 CONTRACT RESULTS

DOVER, OHIO



> “Efficiency Smart was essential in guiding us through our lighting project, from concept to finish, making it a painless transition. Due to the success of our lighting upgrades, we are now working with Efficiency Smart again on an air compressor project.”

MATT DOUGHTY
Plant Manager, INCA Presswood-Pallets, Ltd.
Dover, Ohio

ALLIED MACHINE & ENGINEERING CORPORATION

DOVER, OHIO

New Construction Project

Allied Machine & Engineering Corporation is a leading manufacturer of replaceable-tip drilling systems. It is located in Dover, Ohio. Since its establishment in 1941, Allied Machine has focused on earning the trust of customers through quality, service, and innovation.

"Efficiency Smart reinforced our decision to move forward with energy efficiency upgrades by validating the cost-effectiveness and savings potential of our project. Through reduced energy consumption and maintenance costs, we can expect a quick return on our project costs. We appreciate the assistance received throughout the process."

William Morgan, Controller
Allied Machine & Engineering Corporation

PROJECT GOALS: Incorporate energy-efficient technologies into the construction of a 50,000-square-foot expansion and in the company's existing facility.

SOLUTION: Complete an efficient lighting design and install efficient heating, ventilation, and air conditioning (HVAC) and refrigeration equipment.

PROJECT SUMMARY: Allied Machine worked with Efficiency Smart in 2013 to complete the initial phase of energy efficiency projects at its newly expanded facility in Dover, Ohio. Multiple variable frequency drives were installed on the air distribution system, enabling motors to adjust speed in response to load. An efficient cooling system and efficient appliances for the employee break room and café, along with a high-efficiency air-cooled screw chiller, were also installed.

Additionally, the company installed an interior lighting system 45 percent less energy dense than the energy code standard and an exterior system 65 percent less energy dense. In its existing production facility, metal halide lighting fixtures were replaced with high-performance T8 (HPT8) fixtures, and 13 light-emitting diode (LED) outdoor lights were installed in the parking lot.

Efficiency Smart worked with Allied Machine to provide an independent savings analysis of the project. As a result of the efficient upgrades, the newly expanded facility now operates in an efficient manner. Allied Machine is currently working with Efficiency Smart to complete the second phase of its project.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
734,100

Annual Cost Savings:
$61,500

Lifetime Cost Savings:
$1,020,800

Payback:
2.72 years

Annual CO_2 Reduction:
1,439,900 pounds

PROJECT PARTNERS

William Morgan, Controller,
Allied Machine & Engineering Corporation

Janine Garber, Tax Specialist,
Allied Machine & Engineering Corporation

Ross Randazzo, P.E., Superabrasives Manager, Allied Machine & Engineering Corporation

Keith Cope, HVAC Tech,
Henry Heating & Cooling

Richard Homrighausen,
Mayor, City of Dover

Tom Johnson, Superintendent of Electric Distribution, City of Dover

2011-2013 CONTRACT RESULTS

ELDORADO, OHIO

Residential Products Installed **1,998**

Residential Energy Savings **72 MWh**

Commercial and Industrial Products Installed **142**

Commercial and Industrial Energy Savings **9 MWh**

Lifetime Energy Savings **508 MWh**

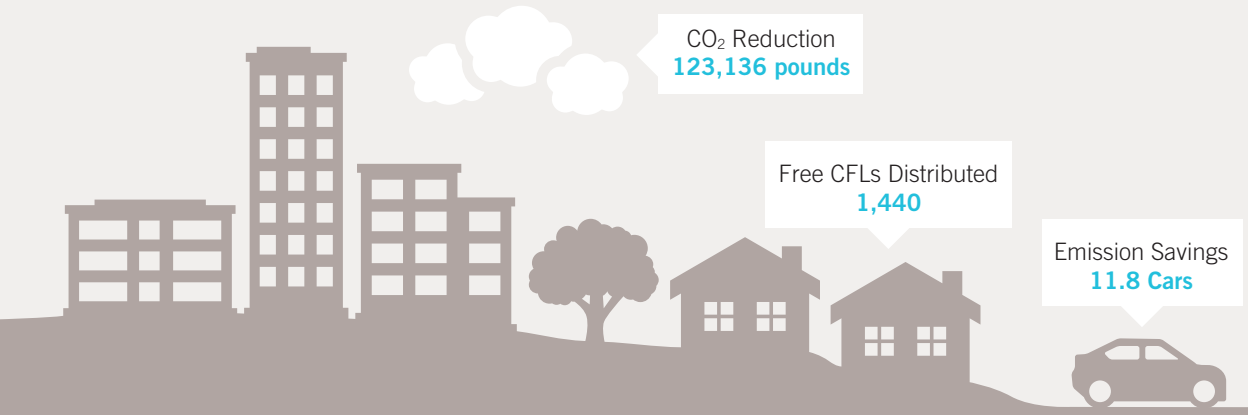
Annual Savings Achieved **81 MWh**

Energy Savings Target **54 MWh**

Actual Savings vs. Target Savings **150%**

Annual Customer Savings **$7,068**

Lifetime Customer Savings **$60,103**



2011-2013 CONTRACT RESULTS

ELMORE, OHIO

Residential Products Installed **2,570**

Residential Energy Savings **87 MWh**

Commercial and Industrial Products Installed **532**

Commericial and Industrial Energy Savings **283 MWh**

Lifetime Energy Savings **4543 MWh**

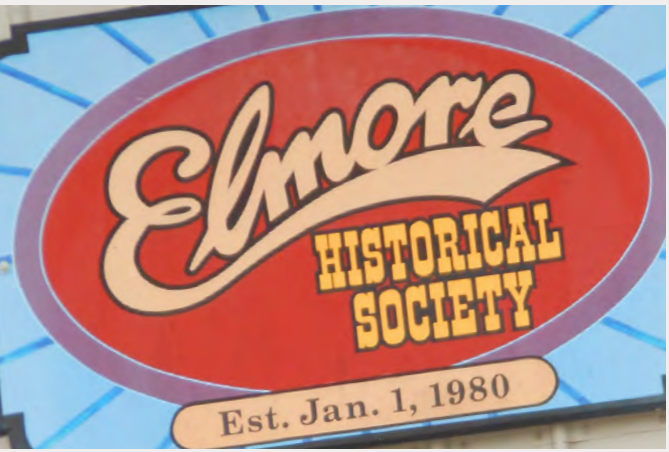
Annual Savings Achieved **371 MWh**

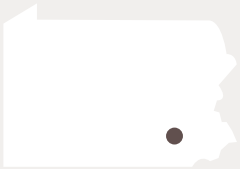
Energy Savings Target **180 MWh**

Actual Savings vs. Target Savings **207%**

Annual Customer Savings **$29,960**

Lifetime Customer Savings **$395,802**





2011-2013 CONTRACT RESULTS

EPHRATA, PENNSYLVANIA

Residential Products Installed **5,477**

Residential Energy Savings **391 MWh**

Commercial and Industrial Products Installed **1,422**

Commericial and Industrial Energy Savings **2,376 MWh**

Annual Savings Achieved **2,768 MWh**

Energy Savings Target **1,620 MWh**

Actual Savings vs. Target Savings **171%**

Annual Customer Savings **$288,614**

Lifetime Energy Savings **35,161 MWh**

Lifetime Customer Savings **$4,025,271**

2011-2013 CONTRACT RESULTS

GALION, OHIO

Residential Products Installed **6,236**

Residential Energy Savings **330 MWh**

Commercial and Industrial Products Installed **4,864**

Commericial and Industrial Energy Savings **4,068 MWh**

Lifetime Energy Savings **52,337 MWh**

Annual Savings Achieved **4,398 MWh**

Energy Savings Target **2,135 MWh**

Actual Savings vs. Target Savings **206%**

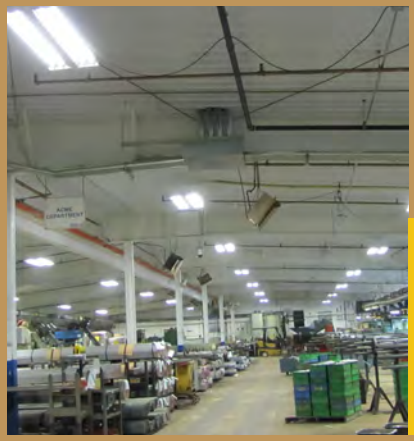
Annual Customer Savings **$431,622**

Lifetime Customer Savings **$6,075,953**

Companies that Completed Projects **11**

Carbon Removed by **2,486 Forest Acres**

Appliances Recycled **83**



GALION LLC

GALION, OHIO

Efficient Lighting Project

Galion LLC is a screw machine manufacturer for the automotive, commercial, and defense industries. Its 100,000-square-foot facility in Galion, Ohio, offers complete manufacturing capabilities. It operates a vertical integration business model in order to minimize logistics costs and maintain world-class quality.

PROJECT GOALS: Complete the second phase of efficient lighting upgrades at its plants.

SOLUTION: Replace inefficient metal halide (MH) fixtures with T5 fixtures.

PROJECT SUMMARY: Galion LLC previously worked with Efficiency Smart to complete a compressed air project and the initial phase of lighting upgrades at its plant. In 2013, the company completed the second phase of its plant lighting upgrades.

Having realized significant energy savings after completing the initial phase, the company continued to replace outdated MH fixtures with efficient T5 fixtures in its facility. Efficiency Smart worked with Galion LLC to compare the savings analyses, financial incentives, and payback amounts of different lighting options.

After reviewing the information, Galion LLC was able to complete its lighting upgrades with increased confidence, and the newly installed fixtures provide efficient and higher-quality lighting.

> "We appreciate the assistance Efficiency Smart provided for our lighting project. We replaced our old high-bay lights with fixtures recommended by its energy consultant. As a result, our facility's energy efficiency is significantly improved."
>
> ***John Collins, Maintenance Supervisor Galion LLC***

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
86,900

Annual Cost Savings:
$9,100

Lifetime Cost Savings:
$137,200

Payback:
0.78 years

Annual CO_2 Reduction:
166,200 pounds

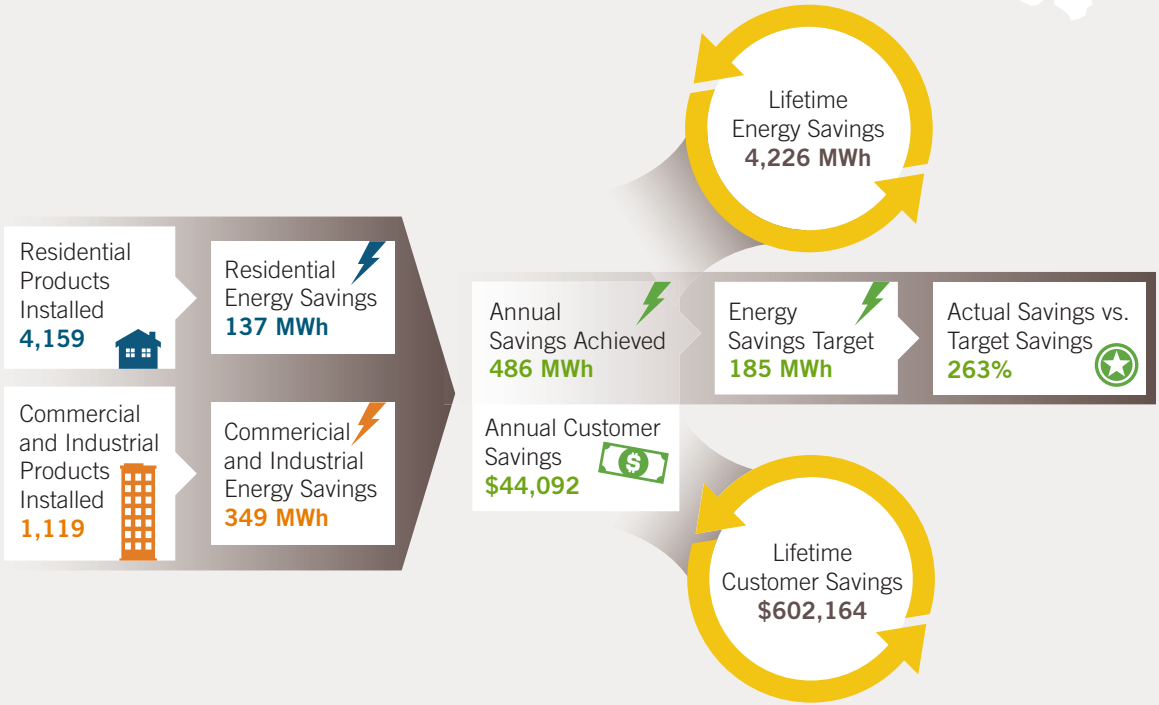
PROJECT PARTNERS

John Collins, Maintenance Supervisor, Galion LLC

Tom O'Leary, Mayor, City of Galion

2011-2013 CONTRACT RESULTS

GENOA, OHIO



"It has been well worth our time and effort to work with Efficiency Smart. Although we were a bit skeptical at first, village officials assured us of the return on investment the energy-saving improvements would have at the Chevrolet dealership. The incentive we received also helped offset some of the expenses. We will be contacting Efficiency Smart in the near future to ask for additional assistance in lowering energy costs."

TERRY PAUL
Executive Manager, Baumann Auto Group
Genoa, Ohio

2011-2013 CONTRACT RESULTS

GLOUSTER,
OHIO

Residential Products Installed **4,388**

Residential Energy Savings **144 MWh**

Commercial and Industrial Products Installed **10**

Commericial and Industrial Energy Savings **1 MWh**

Lifetime Energy Savings **1,139 MWh**

Annual Savings Achieved **146 MWh**

Energy Savings Target **135 MWh**

Actual Savings vs. Target Savings **108%**

Annual Customer Savings **$12,779**

Lifetime Customer Savings **$96,099**

2011-2013 CONTRACT RESULTS

GRAFTON, OHIO

Residential Products Installed **2,599**

Residential Energy Savings **99 MWh**

Commercial and Industrial Products Installed **864**

Commericial and Industrial Energy Savings **359 MWh**

Lifetime Energy Savings **3,777 MWh**

Annual Savings Achieved **458 MWh**

Energy Savings Target **382 MWh**

Actual Savings vs. Target Savings **120%**

Annual Customer Savings **$35,909**

Lifetime Customer Savings **$464,625**

2011-2013 CONTRACT RESULTS

HASKINS,
OHIO

Residential Products Installed **1,568**

Residential Energy Savings **56 MWh**

Commercial and Industrial Products Installed **16**

Commercial and Industrial Energy Savings **2 MWh**

Lifetime Energy Savings **458 MWh**

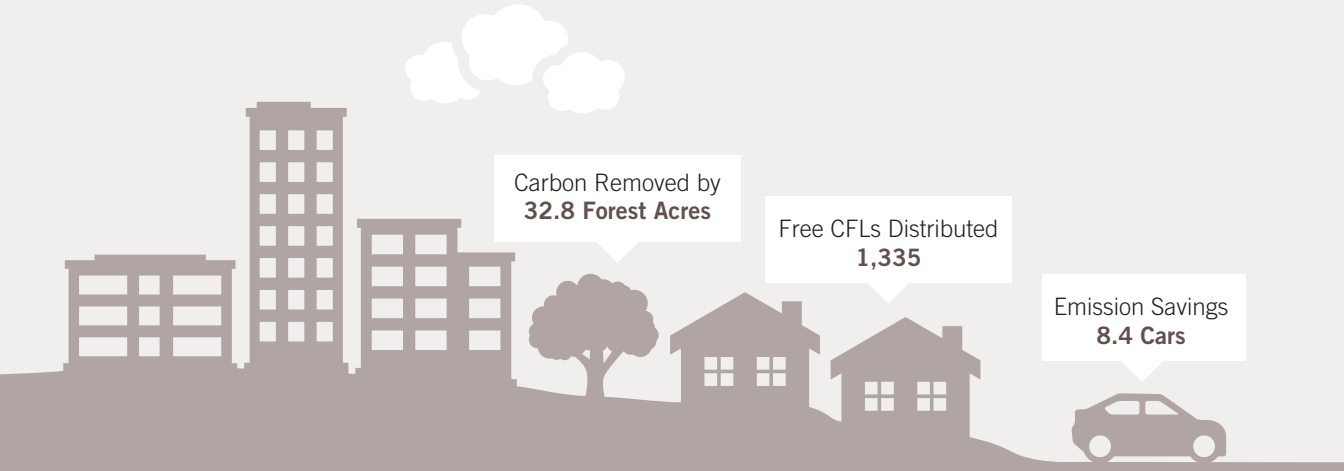
Annual Savings Achieved **58 MWh**

Energy Savings Target **75 MWh**

Actual Savings vs. Target Savings **77%**

Annual Customer Savings **$5,300**

Lifetime Customer Savings **$42,906**



2011-2013 CONTRACT RESULTS

HUBBARD, OHIO

Residential Products Installed **7,212**

Residential Energy Savings **342 MWh**

Commercial and Industrial Products Installed **699**

Commericial and Industrial Energy Savings **822 MWh**

Lifetime Energy Savings **11,640 MWh**

Annual Savings Achieved **1,164 MWh**

Energy Savings Target **1,165 MWh**

Actual Savings vs. Target Savings **99%**

Annual Customer Savings **$109,206**

Lifetime Customer Savings **$1,116,157**

HUBBARD EXEMPTED VILLAGE SCHOOL DISTRICT

HUBBARD, OHIO

New Construction Project

Hubbard Exempted Village School District (HEVSD) is a public school system located in northeast Ohio, consisting of one elementary, one middle, and one high school. HEVSD provides education for nearly 2,000 students in the new buildings equipped with 21st-century technology. The staff at HEVSD focuses on maximizing the intellectual, physical, social, and emotional development of each child in a safe, nurturing, and diverse environment.

> "Efficiency Smart helped us to recognize where we were utilizing inefficient equipment and how to make better use of energy while meeting growing demand."

Rhonda Baldwin-Amorganos, Treasurer/CFO
Hubbard Exempted Village School District

PROJECT GOALS: Incorporate energy-efficient technologies into the construction of a new school complex.

SOLUTION: Design an efficient heating, ventilation, and air conditioning (HVAC) system and efficient lighting measures into the new schools.

PROJECT SUMMARY: When planning for construction of a new elementary and middle school, HEVSD incorporated energy-efficient measures into the design of the schools. The projects within the elementary and middle schools included the installation of:

- More than 80 light-emitting diode (LED) exit signs
- More than 100 occupancy sensors in low-traffic areas
- Variable frequency drives (VFDs) on HVAC supply and exhaust fan motors
- A primary geothermal heat pump system using connected secondary heat pumps throughout the school facility

An Efficiency Smart energy consultant worked with Hammond Construction to review the project and provide validation of the energy savings. As a result of the project, HEVSD was able to reduce energy consumption significantly at its schools, while continuing to provide students an exceptional learning environment. Due to the success of the projects, the school district is considering additional projects with Efficiency Smart.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
799,300

Annual Cost Savings:
$65,200

Lifetime Cost Savings:
$914,000

Payback:
1.98 years

Annual CO_2 Reduction:
1,575,900 pounds

PROJECT PARTNERS

Richard Buchenic, Superintendent, Hubbard Exempted Village School District

Rhonda Baldwin-Amorganos, Treasurer/CFO, Hubbard Exempted Village School District

Ken Romo, Maintenance Supervisor, Hubbard Exempted Village School District

Robert McAuliffe, Construction Manager, Hammond Construction

Ed Palestro, Electric Foreman, City of Hubbard Light Department

2011-2013 CONTRACT RESULTS

HUDSON, OHIO

Residential Products Installed **4,425**

Residential Energy Savings **430 MWh**

Commercial and Industrial Products Installed **4,947**

Commercial and Industrial Energy Savings **3,857 MWh**

Annual Savings Achieved **4,287 MWh**

Energy Savings Target **2,551 MWh**

Actual Savings vs. Target Savings **168%**

Annual Customer Savings **$338,256**

Lifetime Energy Savings **56,406 MWh**

Lifetime Customer Savings **$5,174,978**

> "My experience with Efficiency Smart was very positive. Its staff was knowledgeable and responsive in assisting me with the execution of my project. I would welcome the opportunity to work with Efficiency Smart on additional energy- and money-saving projects in the future."

JOHN OTTINGER
Owner, Jacklin Properties, LLC
Hudson, Ohio

2011-2013 CONTRACT RESULTS

JACKSON, OHIO

Residential Products Installed **8,598**

Residential Energy Savings **310 MWh**

Commercial and Industrial Products Installed **2,615**

Commericial and Industrial Energy Savings **1,733 MWh**

Lifetime Energy Savings **22,160 MWh**

Annual Savings Achieved **2,043 MWh**

Energy Savings Target **2,107 MWh**

Actual Savings vs. Target Savings **99%**

Annual Customer Savings **$155,203**

Lifetime Customer Savings **$1,767,814**

"Efficiency Smart has been a pleasure to work with. They provided us with technical information in a timely manner to help meet our goals. We are very happy with the services we received."

JESSICA SCURLOCK

Maintenance Secretary, Ohio Precious Metals, LLC

Jackson, Ohio

2011-2013 CONTRACT RESULTS

JACKSON CENTER, OHIO

Residential Products Installed **4,298**

Residential Energy Savings **187 MWh**

Commercial and Industrial Products Installed **1,182**

Commericial and Industrial Energy Savings **427 MWh**

Lifetime Energy Savings **6,372 MWh**

Annual Savings Achieved **614 MWh**

Energy Savings Target **244 MWh**

Actual Savings vs. Target Savings **252%**

Annual Customer Savings **$53,158**

Lifetime Customer Savings **$655,399**

Companies that Completed Projects **7**

Residential Rebates Redeemed **15**

Discounted CFLs Purchased **3,911**

VILLAGE OF JACKSON CENTER

JACKSON CENTER, OHIO

Efficient Motor Controls Project

The Village of Jackson Center, with a population of about 1,400, is located in Shelby County. While Jackson Center continues to see residential and commercial growth, the village continues to preserve its small town feel.

PROJECT GOALS: Reduce the energy consumption of the village's wastewater treatment plant (WWTP).

SOLUTION: Install variable frequency drives (VFDs) in the plant's aeration process blowers.

PROJECT SUMMARY: In 2013, the Village of Jackson Center worked with Efficiency Smart to increase the energy efficiency of its WWTP. The Village installed two VFDs on 15-horsepower motors in the oxidation ditch blowers, which regulate the speed of the motors by meeting the flow within the system rather than running continuously.

Efficiency Smart worked with the Village of Jackson Center to review the project designs and verify the savings potential. As a result of the efficient controls project, the WWTP runs more efficiently, lowering electric costs for the Village.

> "Our WWTP had too much oxygen introduced to our treatment process, increasing electric usage. The WWTP staff worked with Efficiency Smart to install VFD units on the aerators, saving the Village on unnecessary electric costs while improving the treatment process."

Bruce Metz, Village Administrator
Village of Jackson Center

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
19,200

Annual Cost Savings:
$1,800

Lifetime Cost Savings:
$17,900

Payback:
2.19 years

Annual CO_2 Reduction:
38,200 pounds

PROJECT PARTNERS

Bruce Metz, Village Administrator, Village of Jackson Center

Kevin Sailor, Water/Wastewater Superintendent, Village of Jackson Center

2011-2013 CONTRACT RESULTS

LAKEVIEW, OHIO

Residential Products Installed **822**

Residential Energy Savings **27 MWh**

Commercial and Industrial Products Installed **300**

Commericial and Industrial Energy Savings **154 MWh**

Lifetime Energy Savings **866 MWh**

Annual Savings Achieved **181 MWh**

Energy Savings Target **98 MWh**

Actual Savings vs. Target Savings **185%**

Annual Customer Savings **$13,203**

Lifetime Customer Savings **$198,464**

2011-2013 CONTRACT RESULTS

LODI, OHIO

Residential Products Installed **3,214**

Residential Energy Savings **147 MWh**

Commercial and Industrial Products Installed **4,184**

Commericial and Industrial Energy Savings **1,158 MWh**

Annual Savings Achieved **1,305 MWh**

Energy Savings Target **612 MWh**

Actual Savings vs. Target Savings **213%**

Annual Customer Savings **$101,539**

Lifetime Energy Savings **13,272 MWh**

Lifetime Customer Savings **$1,364,153**

2011-2013 CONTRACT RESULTS

LUCAS, OHIO

Residential Products Installed **2,166**

Residential Energy Savings **79 MWh**

Commercial and Industrial Products Installed **57**

Commercial and Industrial Energy Savings **6 MWh**

Lifetime Energy Savings **670 MWh**

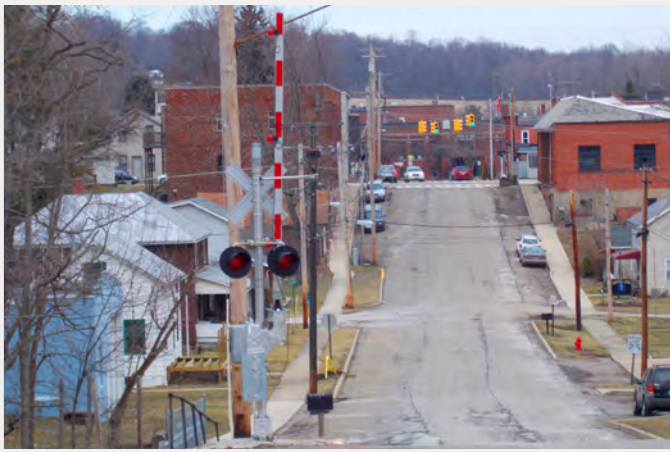
Annual Savings Achieved **85 MWh**

Energy Savings Target **95 MWh**

Actual Savings vs. Target Savings **89%**

Annual Customer Savings **$8,195**

Lifetime Customer Savings **$59,335**



2011-2013 CONTRACT RESULTS

MENDON, OHIO

Residential Products Installed **1,153**

Residential Energy Savings **42 MWh**

Commercial and Industrial Products Installed **125**

Commercial and Industrial Energy Savings **36 MWh**

Lifetime Energy Savings **814 MWh**

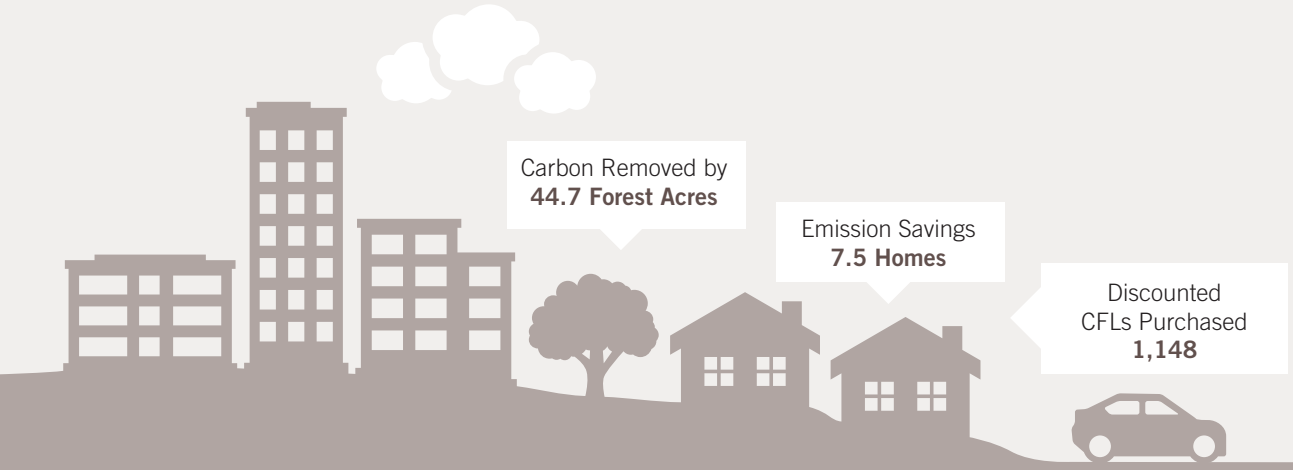
Annual Savings Achieved **79 MWh**

Energy Savings Target **69 MWh**

Actual Savings vs. Target Savings **114%**

Annual Customer Savings **$7,288**

Lifetime Customer Savings **$71,720**



2011-2013 CONTRACT RESULTS

MILAN, OHIO

Residential Products Installed **1,939**

Residential Energy Savings **92 MWh**

Commercial and Industrial Products Installed **740**

Commericial and Industrial Energy Savings **501 MWh**

Lifetime Energy Savings **6,982 MWh**

Annual Savings Achieved **593 MWh**

Energy Savings Target **248 MWh**

Actual Savings vs. Target Savings **240%**

Annual Customer Savings **$59,843**

Lifetime Customer Savings **$741,426**

2011-2013 CONTRACT RESULTS

MINSTER, OHIO

Residential Products Installed **4,686**

Residential Energy Savings **246 MWh**

Commercial and Industrial Products Installed **2,155**

Commericial and Industrial Energy Savings **1,312 MWh**

Lifetime Energy Savings **17,980 MWh**

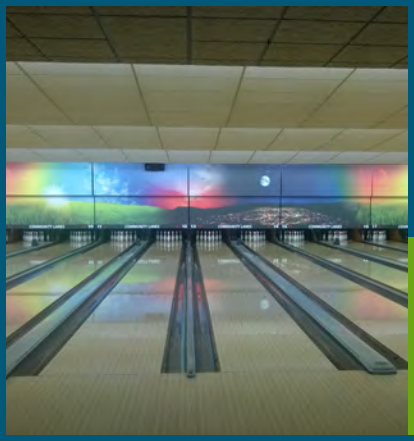
Annual Savings Achieved **1,557 MWh**

Energy Savings Target **1,500 MWh**

Actual Savings vs. Target Savings **104%**

Annual Customer Savings **$103,624**

Lifetime Customer Savings **$1,374,550**



COMMUNITY LANES

MINSTER, OHIO

Efficient Lighting Project

Community Lanes is a community-owned bowling alley whose mission is to provide a facility for families and friends to enjoy. Although the bowling alley has expanded and new technology has been incorporated since it opened in 1959, Community Lanes still operates with its original commitment of always meeting the needs of the bowler.

PROJECT GOALS: Incorporate new lighting technology and reduce electric and operation costs.

SOLUTION: Install efficient lighting throughout the bowling facility.

PROJECT SUMMARY: Community Lanes took advantage of lighting rebates through Efficiency Smart's Business Energy Rebates program to complete an efficient lighting project in 2013. Partnering with Buschur Electric, an Efficiency Smart Vendor Partner Ally (VPA), the company upgraded 95 T12 fixtures with high-performance T8 (HPT8) fixtures throughout the facility.

As a result of its lighting upgrades, Community Lanes was able to reduce its energy consumption and overall operating costs. Additionally, the new lighting fixtures improved the quality of light for bowlers at the facility.

> "Working with Efficiency Smart was easy. Everything went well and the project was completed in a timely manner. Receiving a rebate to install new lights that will last longer made working with Efficiency Smart a no-brainer!"
>
> ***Chad Berning, Manager***
> ***Community Lanes***

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
28,300

Annual Cost Savings:
$2,500

Lifetime Cost Savings:
$43,700

Payback:
2.92 years

Annual CO_2 Reduction:
60,800 pounds

PROJECT PARTNERS

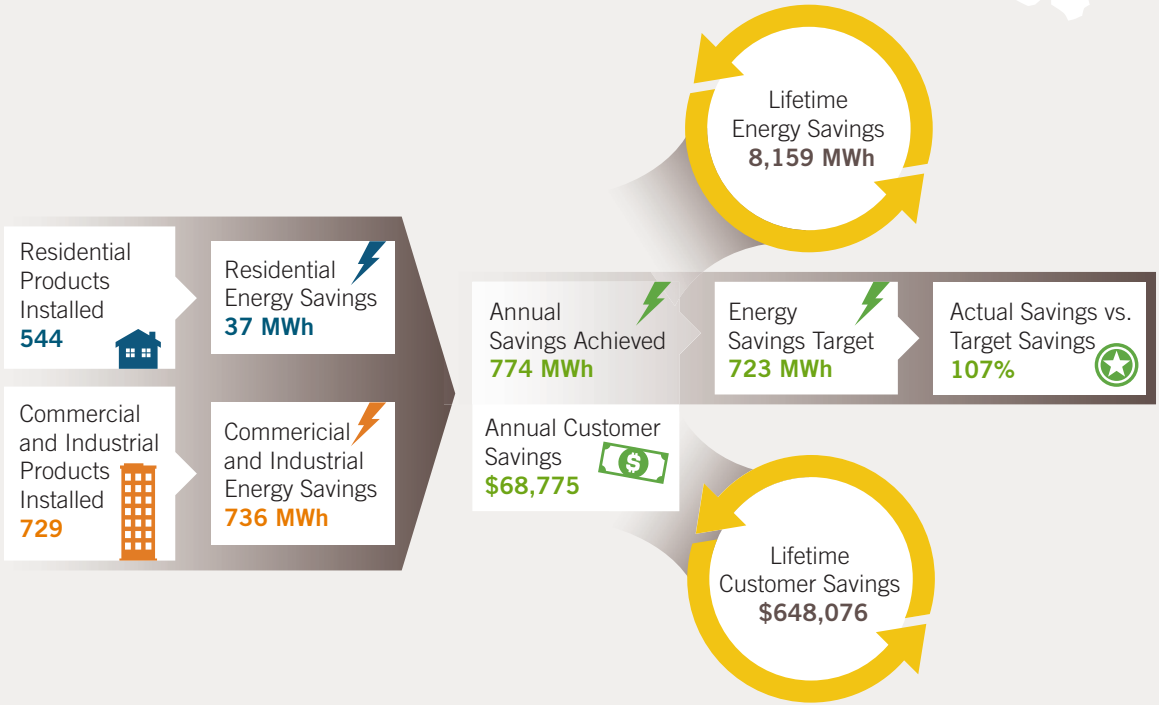
Chad Berning, Manager,
Community Lanes

Lucas Nagel, Project Manager,
Buschur Electric, Inc.

Don Harrod, Village Administrator,
Village of Minster

2011-2013 CONTRACT RESULTS

MONROEVILLE, OHIO



> "I received a $50 rebate from Efficiency Smart on the purchase of an energy-efficient washing machine. I'm seeing the benefits of the new washer, as I've saved money on energy and water costs. I appreciate all the help Efficiency Smart provides to save energy."

SUE
Residential Electric Customer
Monroeville, Ohio

MONROEVILLE LOCAL SCHOOLS

MONROEVILLE, OHIO

Efficient Lighting Project

Monroeville Local Schools (MLS) is a public school system made up of an elementary, junior high, and senior high school, all located in one school building. MLS's vision is to provide excellence in education and to assure each student a well-rounded education program leading to a rewarding career.

PROJECT GOALS: Reduce energy consumption while improving light quality.

SOLUTION: Upgrade existing lighting with energy-efficient alternatives.

PROJECT SUMMARY: In 2013, MLS worked with Efficiency Smart to complete an efficient lighting project as part of a larger Energy Conservation Program (House Bill 264) project. The school district worked with Evans Energy, LLC to retrofit lighting throughout the school building, including upgrading:

- More than 500 T8 fixtures with high-performance T8 (HPT8) lamps located in classrooms, hallways, and the library
- More than 120 T8 fixtures with HPT8 lamps in hallways, music rooms, and locker rooms
- More than 40 metal halide fixtures with high-bay compact fluorescent fixtures in the gymnasium

An Efficiency Smart energy consultant worked with the school's contractor to review the project details and validate energy savings potential. As a result of the project, MLS was able to reduce energy consumption significantly, and the upgrades improved the lighting quality for students, faculty, and staff at the school.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
92,000

Annual Cost Savings:
$8,700

Lifetime Cost Savings:
$104,600

Payback:
2.09 years

Annual CO_2 Reduction:
176,700 pounds

PROJECT PARTNERS

Steve Reer, Former Board of Education Vice President, Monroeville Local Schools

Gregg Elchert, Superintendent, Monroeville Local Schools

Mike Wade, Treasurer, Monroeville Local Schools

Jeremy Luce, Maintenance Director, Monroeville Local Schools

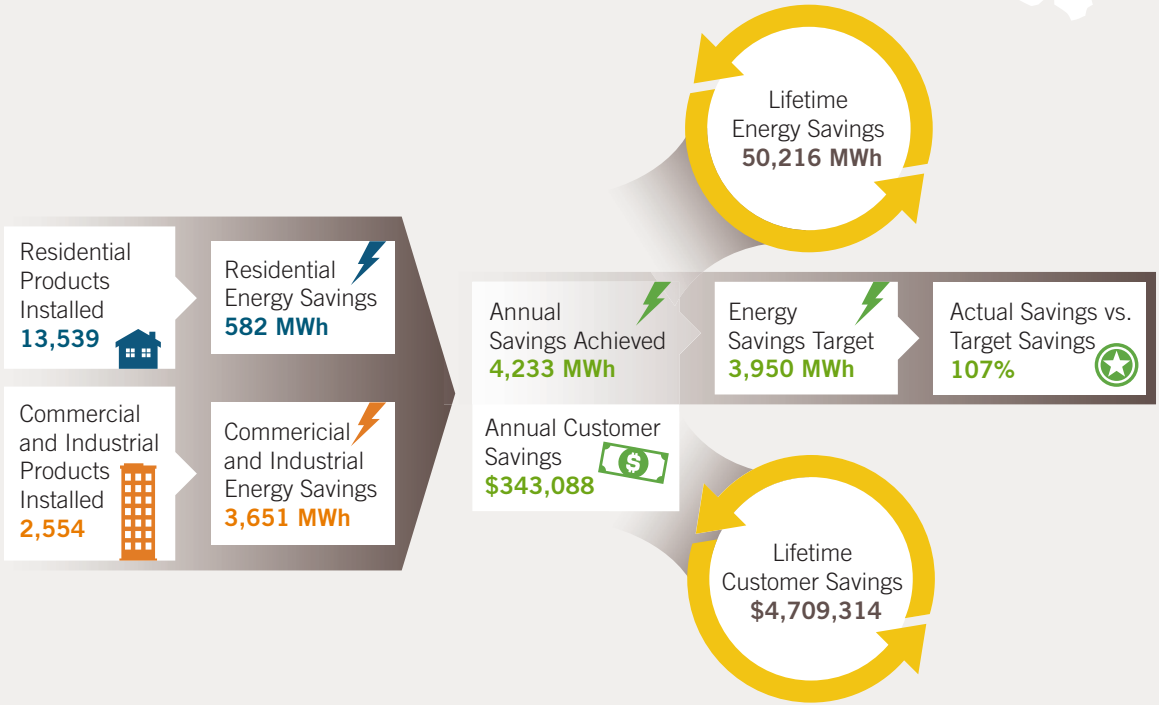
Jeffrey Evans, Owner, Evans Energy, LLC

Mike Goodwin, Village Administrator, Village of Monroeville

Bonnie Beck, Clerk/Treasurer, Village of Monroeville

2011-2013 CONTRACT RESULTS

NAPOLEON, OHIO



> "We had a very good working relationship with Efficiency Smart, from the initial contact to the final incentive payment. We received good communication throughout the project, and all of our questions were answered in a timely manner. We look forward to working with Efficiency Smart again."

JOE BERGSTEDT
Building Maintenance, Alex Products, Inc.
Napoleon, Ohio

AUTOMATIC FEED COMPANY

NAPOLEON, OHIO

Efficient Lighting Project

Automatic Feed Company is an independent and privately owned designer and manufacturer of coil handling and press feeding automation equipment. Operating in Napoleon, Ohio, since 1949, the award-winning company provides turnkey systems and complete project management to equipment manufacturers and automotive suppliers.

"Through its Vendor Partner Ally initiative, Efficiency Smart verified that we selected a reputable provider in PowerBuilt for our lighting project. Efficiency Smart and PowerBuilt worked together to complete our project in a timely manner, and we couldn't be happier with the results. The bottom line is that the promised savings are really there."

Peter Beck, Vice President and COO
Automatic Feed

PROJECT GOALS: Reduce energy consumption while improving lighting quality for staff at the company's facility.

SOLUTION: Replace high-intensity discharge (HID) and T12 fluorescent fixtures with an energy-efficient lighting system.

PROJECT SUMMARY: In 2013, the Automatic Feed Company completed an efficient lighting project to reduce energy consumption at its facility in Napoleon, Ohio. The company worked with PowerBuilt Material Handling Solutions to replace existing T12 lighting fixtures with high-performance T8 (HPT8) fixtures in the paint booth, and to replace existing HID fixtures with efficient high-bay T5 fluorescent fixtures in the machining, fabrication, and assembly areas.

Efficiency Smart worked with PowerBuilt Material Handling Solutions to review the lighting project and validate energy savings potential. As a result of the project, Automatic Feed was able to reduce energy consumption significantly, and the new lights improved lighting quality throughout the facility.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
359,100

Annual Cost Savings:
$30,800

Lifetime Cost Savings:
$462,100

Payback:
1.04 years

Annual CO_2 Reduction:
688,400 pounds

PROJECT PARTNERS

Brad West, Senior Electrical Project Engineer, Automatic Feed Company

Nathan Weaks, Treasurer, Automatic Feed Company

Peter Beck, Vice President and COO, Automatic Feed Company

Ryan Brentlinger, Project Manager, PowerBuilt Material Handling Solutions LLC

Ross Kelly, District Manager, PowerBuilt Material Handling Solutions LLC

Jon Bisher, City Manager, City of Napoleon

Dennis Clapp, Electric Distribution Superintendent, City of Napoleon

2011-2013 CONTRACT RESULTS

NEW BREMEN, OHIO

Residential Products Installed **2,158**

Residential Energy Savings **127 MWh**

Commercial and Industrial Products Installed **2,068**

Commericial and Industrial Energy Savings **1,472 MWh**

Lifetime Energy Savings **21,444 MWh**

Annual Savings Achieved **1,599 MWh**

Energy Savings Target **365 MWh**

Actual Savings vs. Target Savings **438%**

Annual Customer Savings **$133,462**

Lifetime Customer Savings **$2,078,120**

Carbon Removed **904 Forest Acres**

Appliances Recycled **31**

Residential Rebates Redeemed **45**

2011-2013 CONTRACT RESULTS

NEWTON FALLS, OHIO

Residential Products Installed **2,781**

Residential Energy Savings **152 MWh**

Commercial and Industrial Products Installed **319**

Commericial and Industrial Energy Savings **761 MWh**

Annual Savings Achieved **913 MWh**

Energy Savings Target **568 MWh**

Actual Savings vs. Target Savings **161%**

Annual Customer Savings **$81,743**

Lifetime Energy Savings **11,248 MWh**

Lifetime Customer Savings **$1,053,182**

VENTURE PLASTICS, INC.

NEWTON FALLS, OHIO

Efficient Process Cooling System, Air Compressor, Material Drying, and Lighting Project

Venture Plastics, INC. offers custom injection molding services and custom part design. Founded in 1969, the company provides injection molded components and assemblies to customers in multiple industries. Venture Plastics has facilities in Newton Falls, Ohio, and El Paso, Texas.

"Our experience with Efficiency Smart has been extremely positive. Its expert energy analysis has allowed us to make smart decisions on equipment and system purchases, which increased our energy efficiency and reduced our carbon footprint. I look forward to working with Efficiency Smart on future projects."

Timothy Groff, Corporate Asset Manager
Venture Plastics, INC.

PROJECT GOALS: Reduce operating costs while improving the efficiency of plant operations.

SOLUTION: Upgrade the existing technology by installing energy-efficient components throughout the facility.

PROJECT SUMMARY: In 2013, Venture Plastics worked with Efficiency Smart to complete multiple energy efficiency projects. The company installed its second phase of ceramic heater bands to minimize heat loss on barrels that provide plastic injection into the product molds. Partnering with APO Pumps & Compressors, Inc., an Efficiency Smart Vendor Partner Ally, Venture Plastics also replaced two existing air compressors with a single 60-horsepower unit equipped with a variable frequency drive, enabling the compressor to adjust speed in response to load. A new material drying system, which utilized an energy wheel to remove moisture from raw plastic product, was also installed.

In addition to lowering the energy consumed in the drying process, the molding machines now heat the plastic product quicker, which will increase production cycle time and save energy. Lastly, the company completed an efficient lighting project, replacing 24 metal halide lighting fixtures with efficient T5 fixtures and installing eight occupancy sensors in the warehouse area.

Efficiency Smart worked with Venture Plastics to review the projects and validate savings potential. Venture Plastics was able to reduce energy consumption while lowering operating costs, and as a result of the successful projects, the company has decided to undertake additional energy efficiency projects.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
191,300

Annual Cost Savings:
$15,200

Lifetime Cost Savings:
$209,600

Payback:
7.23 years

Annual CO_2 Reduction:
379,000 pounds

PROJECT PARTNERS

Timothy Groff, Corporate Asset Manager, Venture Plastics, INC.

Jim Smith, Vice President of Operations, Venture Plastics, INC.

Kenneth Groff, CEO, Venture Plastics, INC.

Greg Cross, Sales Engineer, APO Pumps & Compressors, Inc.

Tracy Reimbold, Finance Director, City of Newton Falls

2011-2013 CONTRACT RESULTS

NILES, OHIO

Residential Products Installed **3,107**

Residential Energy Savings **273 MWh**

Commercial and Industrial Products Installed **5,167**

Commercial and Industrial Energy Savings **4,021 MWh**

Lifetime Energy Savings **52,810 MWh**

Annual Savings Achieved **4,293 MWh**

Energy Savings Target **5,874 MWh**

Actual Savings vs. Target Savings **73%**

Annual Customer Savings **$358,815**

Lifetime Customer Savings **$5,074,941**

Companies that Completed Projects **26**

Appliances Recycled **103**

Discounted CFLs Purchased **2,907**

2011-2013 CONTRACT RESULTS

OAK HARBOR, OHIO

Residential Products Installed **1,039**

Residential Energy Savings **76 MWh**

Commercial and Industrial Products Installed **2,066**

Commericial and Industrial Energy Savings **714 MWh**

Annual Savings Achieved **790 MWh**

Energy Savings Target **324 MWh**

Actual Savings vs. Target Savings **244%**

Annual Customer Savings **$72,484**

Lifetime Energy Savings **9,564 MWh**

Lifetime Customer Savings **$999,671**

2011-2013 CONTRACT RESULTS

OBERLIN, OHIO

Residential Products Installed **5,591**

Residential Energy Savings **259 MWh**

Commercial and Industrial Products Installed **25,518**

Commercial and Industrial Energy Savings **5,389 MWh**

Annual Savings Achieved **5,648 MWh**

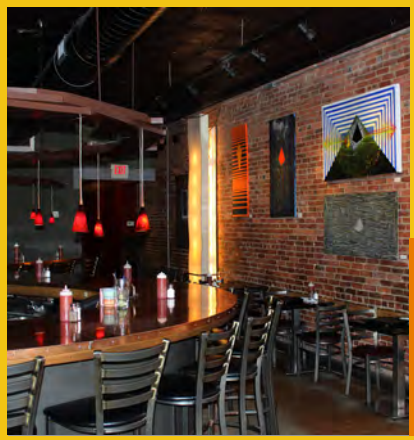
Energy Savings Target **1,424 MWh**

Actual Savings vs. Target Savings **397%**

Annual Customer Savings **$507,900**

Lifetime Energy Savings **54,688 MWh**

Lifetime Customer Savings **$5,797,709**



THE FEVE

OBERLIN, OHIO

Efficient Lighting and Refrigeration Project

The Feve is a two-story restaurant and bar located in Oberlin, Ohio. The restaurant provides a dining experience for any mood, offering table service on its main floor and a more casual environment on the top floor. Since opening in 1992, the Feve has become a popular place in the community to enjoy a meal with friends and family.

PROJECT GOALS: Reduce the energy consumption and operating expenses of the restaurant.

SOLUTION: Install efficient refrigeration units and fixtures that use light-emitting diodes (LEDs).

PROJECT SUMMARY: In 2013, the Feve used Efficiency Smart's Business Energy Rebates (BER) program to complete an efficient lighting and refrigeration project. Selecting energy-efficient technology recommended through the rebate application, the restaurant replaced its existing incandescent light bulbs with LEDs, and also replaced its walk-in refrigeration unit with three upright reach-in refrigerators.

Efficiency Smart provided a rebate for the project, helping reduce the payback period on the efficient upgrades. The Feve was able to install LED lights that not only saved on electric and maintenance costs, but also accentuated the presentation of its food offerings. In addition, the newly installed refrigeration units met the needs of the restaurant while successfully cutting its expenses.

> "Working with Efficiency Smart on our efficiency upgrades was easy. The team's advice and communication ensured that we got the most energy savings out of the project, and we received our rebate check in a timely manner. After realizing the benefits of the efficiency upgrades at the restaurant, I also took advantage of Efficiency Smart's residential rebates for my home."
>
> ***Matt Adelman, Co-owner***
> ***The Feve***

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
73,400

Annual Cost Savings:
$6,600

Lifetime Cost Savings:
$27,600

Payback:
1.43 years

Annual CO_2 Reduction:
142,900 pounds

PROJECT PARTNERS

Matt Adelman, Co-owner,
The Feve

Steve Dupee, Utility Director,
City of Oberlin

Doug McMillan, Energy Services
& Sustainability Manager, City of Oberlin

2011-2013 CONTRACT RESULTS

ORRVILLE, OHIO

Residential Products Installed **7,179**

Residential Energy Savings **414 MWh**

Commercial and Industrial Products Installed **4,838**

Commercial and Industrial Energy Savings **9,381 MWh**

Lifetime Energy Savings **130,214 MWh**

Annual Savings Achieved **9,795 MWh**

Energy Savings Target **3,406 MWh**

Actual Savings vs. Target Savings **288%**

Annual Customer Savings **$629,015**

Lifetime Customer Savings **$9,632,179**

> "Working with Efficiency Smart gave us the resources needed to implement energy-saving features in our new facility. The rebate was a great bonus on top of the expertise they provided us."

MARK STEINER
Vice President, Venture Products, Inc.
Orrville, Ohio

2011-2013 CONTRACT RESULTS

PEMBERVILLE, OHIO

Residential Products Installed **1,353**

Residential Energy Savings **67 MWh**

Commercial and Industrial Products Installed **328**

Commericial and Industrial Energy Savings **153 MWh**

Lifetime Energy Savings **2,414 MWh**

Annual Savings Achieved **219MWh**

Energy Savings Target **194 MWh**

Actual Savings vs. Target Savings **113%**

Annual Customer Savings **$19,022**

Lifetime Customer Savings **$225,243**

2011-2013 CONTRACT RESULTS

PROSPECT, OHIO

Residential Products Installed **3,757**

Residential Energy Savings **113 MWh**

Commercial and Industrial Products Installed **148**

Commercial and Industrial Energy Savings **59 MWh**

Lifetime Energy Savings **1,222 MWh**

Annual Savings Achieved **172 MWh**

Energy Savings Target **209 MWh**

Actual Savings vs. Target Savings **82%**

Annual Customer Savings **$13,588**

Lifetime Customer Savings **$146,098**

CO_2 Reduction **261,474 pounds**

Emission Savings **16.3 Homes**

Free CFLs Distributed **3,485**

2011-2013 CONTRACT RESULTS

ST. MARYS,
OHIO

Residential Products Installed **4,824**

Residential Energy Savings **220 MWh**

Commercial and Industrial Products Installed **1,723**

Commericial and Industrial Energy Savings **2,179 MWh**

Lifetime Energy Savings **28,161 MWh**

Annual Savings Achieved **2,399 MWh**

Energy Savings Target **958 MWh**

Actual Savings vs. Target Savings **250%**

Annual Customer Savings **$155,111**

Lifetime Customer Savings **$2,261,836**

McDONALD'S

ST. MARYS, OHIO

Efficient Lighting Project

As part of the world's leading global food service retailer, Fort Inc. owns and operates the McDonald's on Indiana Avenue in St. Marys, Ohio. The McDonald's in St. Marys provides a local experience from a global company with more than 35,000 locations in more than 100 countries.

PROJECT GOALS: Reduce energy consumption and improve lighting for customers at the restaurant.

SOLUTION: Replace existing lighting with the latest light-emitting diodes (LEDs) and lighting technology upgrades.

PROJECT SUMMARY: In 2013, Fort Inc. completed an efficient lighting project with Efficiency Smart at its McDonald's restaurant in St. Marys, Ohio. The company removed outdated lighting throughout the restaurant and installed:

- Seventy-nine LED downlights in the lobby
- Ten LED streetlight fixtures in the parking lot
- Sixteen LED wall-mount fixtures on the exterior of the building
- Twleve compact fluorescent fixtures in decorative pendant lighting inside the restaurant
- Six LED canopy lighting fixtures on the outer perimeter of the building

An Efficiency Smart energy consultant worked with Fort Inc. to review the lighting design and calculate energy savings. With the new lights installed, the company reduced its electric consumption significantly. In addition, the improved lighting provided a welcoming environment for customers to enjoy.

As a result of the successful project, the company recommended Efficiency Smart's services to another McDonald's in Minster, Ohio, which also completed energy efficiency upgrades.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
90,100

Annual Cost Savings:
$6,700

Lifetime Cost Savings:
$98,100

Payback:
4.54 years

Annual CO_2 Reduction:
175,500 pounds

PROJECT PARTNERS

Jeff Monfort, Co-owner, Fort Inc.

Mary Monfort, Co-owner, Fort Inc.

Jason Monfort, Owner, Monfort, LLC

Greg Foxhoven, Director of Public Service & Safety, City of St. Marys

2011-2013 CONTRACT RESULTS

TIPP CITY, OHIO

Residential Products Installed **4,109**

Residential Energy Savings **242 MWh**

Commercial and Industrial Products Installed **611**

Commericial and Industrial Energy Savings **377 MWh**

Lifetime Energy Savings **7,156 MWh**

Annual Savings Achieved **619 MWh**

Energy Savings Target **324 MWh**

Actual Savings vs. Target Savings **191%**

Annual Customer Savings **$56,736**

Lifetime Customer Savings **$695,231**

CO_2 Reduction **940,620 pounds**

Residential Rebates Redeemed **44**

Discounted CFLs Purchased **4,026**

2011-2013 CONTRACT RESULTS

VERSAILLES, OHIO

Residential Products Installed **5,693**

Residential Energy Savings **290 MWh**

Commercial and Industrial Products Installed **2,590**

Commercial and Industrial Energy Savings **1,740 MWh**

Lifetime Energy Savings **21,283 MWh**

Annual Savings Achieved **2,031 MWh**

Energy Savings Target **769 MWh**

Actual Savings vs. Target Savings **264%**

Annual Customer Savings **$169,400**

Lifetime Customer Savings **$1,920,836**

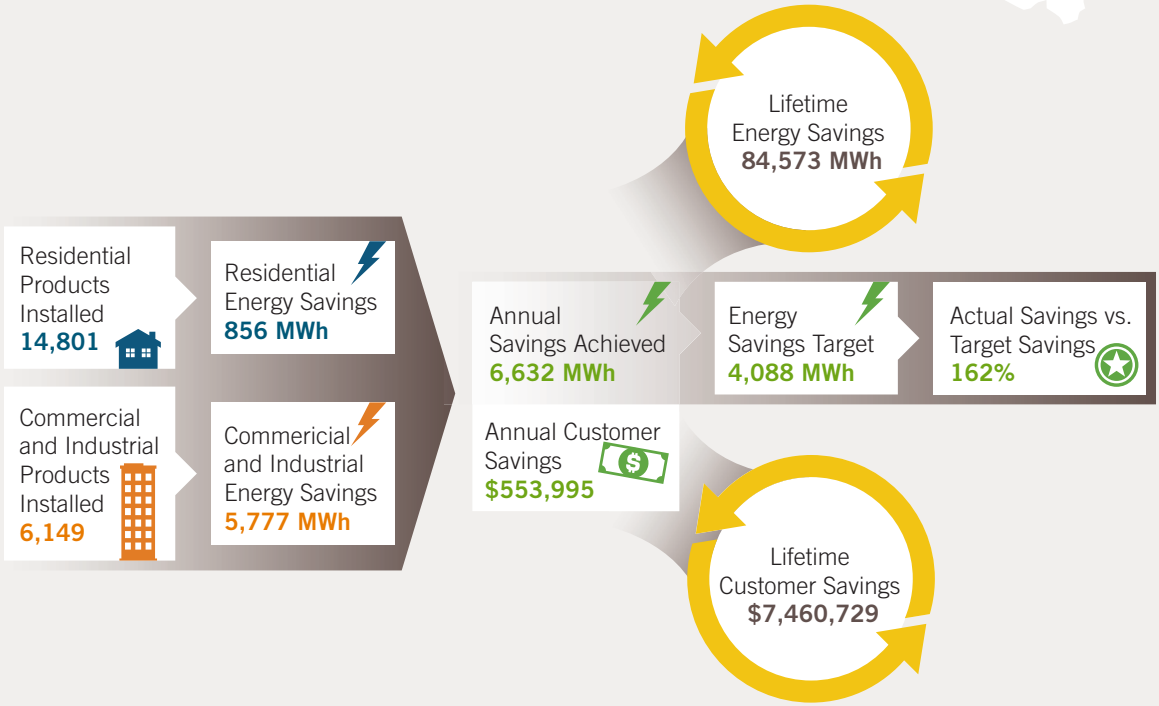
Companies that Completed Projects **9**

Appliances Recycled **52**

Discounted CFLs Purchased **3,541**

2011-2013 CONTRACT RESULTS

WADSWORTH, OHIO



> "The community of Wadsworth and Wadsworth City Schools made an investment to construct four new facilities to meet the needs of students. Efficiency Smart was integral to ensuring energy efficiency was a key component, influencing design and purchasing. WCS is proud that the implemented projects help the City of Wadsworth meet its energy efficiency goals, while saving taxpayers money in the long run through reduced energy consumption."

JOSEPH MAGNACCA
Director of Facilities, Wadsworth City Schools
Wadsworth, Ohio

PT TECH

WADSWORTH, OHIO

Efficient Lighting Project

A subsidiary of EBO Group, Inc., PT Tech is an employee-owned company established in 1978 that manufactures industrial clutches, brakes, and control systems and also offers custom engineering. The company's mission is to advance customers' products with innovative drive-system solutions for extreme machines.

PROJECT GOALS: Upgrade lighting fixtures and reduce electric consumption.

SOLUTION: Replace existing lighting fixtures with efficient light-emitting diodes (LEDs).

PROJECT SUMMARY: In 2012, PT Tech completed an efficient lighting project through Efficiency Smart's Business Energy Rebates (BER) program, replacing interior lighting at its facility. After the success of the first project, the company again used the BER program when installing efficient exterior lighting in 2013.

The 2013 project consisted of installing 17 LED wall-mounted light fixtures and three LED floodlights on the exterior of the manufacturing facility. As a result of the project, the company will reduce its electric and maintenance expenses for years to come.

> "Efficiency Smart has been very helpful in providing us with expert guidance so that we can make the right choices in our lighting fixtures. They have been easy to work with throughout the entire process, and we are excited to be a part of a program that reduces costs for our company and the city of Wadsworth."
>
> ***Michael Shivak, Facility/Safety Manger PT Tech***

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
7,400

Annual Cost Savings:
$700

Lifetime Cost Savings:
$10,400

Payback:
7.02 years

Annual CO_2 Reduction:
13,800 pounds

PROJECT PARTNERS

Michael Shivak, Facility/Safety Manager, PT Tech

Jeff Affolter, Project Manager, M & M Electrical Contractors, Inc.

Becky Swarmer, Office Manager, M & M Electrical Contractors, Inc.

Chris Easton, Director of Public Service, City of Wadsworth

Harry Stark, Assistant Director of Public Service, City of Wadsworth

2011-2013 CONTRACT RESULTS

WAYNESFIELD, OHIO

Residential Products Installed **897**

Residential Energy Savings **32 MWh**

Commercial and Industrial Products Installed **55**

Commericial and Industrial Energy Savings **86 MWh**

Lifetime Energy Savings **809 MWh**

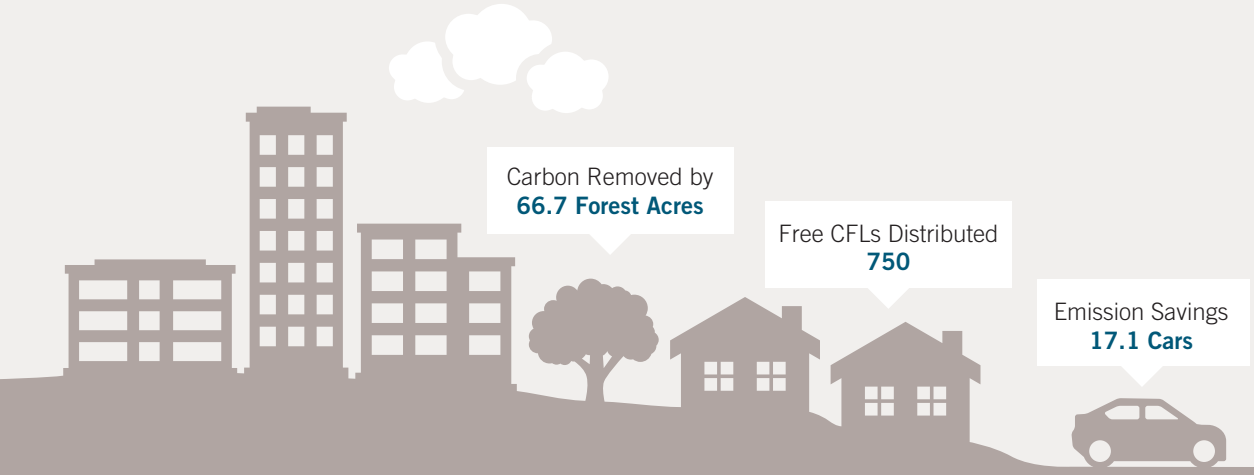
Annual Savings Achieved **118 MWh**

Energy Savings Target **79 MWh**

Actual Savings vs. Target Savings **149%**

Annual Customer Savings **$10,664**

Lifetime Customer Savings **$70,556**



2011-2013 CONTRACT RESULTS

WELLINGTON, OHIO

Residential Products Installed **3,067**

Residential Energy Savings **160 MWh**

Commercial and Industrial Products Installed **3,082**

Commericial and Industrial Energy Savings **1,127 MWh**

Lifetime Energy Savings **11,045 MWh**

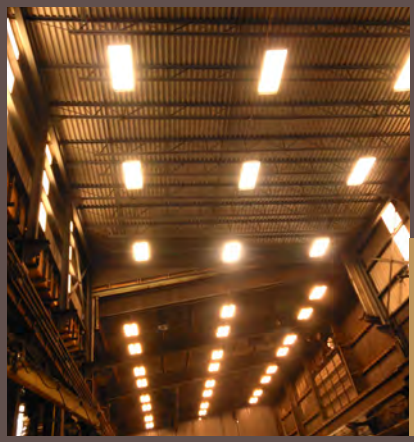
Annual Savings Achieved **1,287 MWh**

Energy Savings Target **1,442 MWh**

Actual Savings vs. Target Savings **89%**

Annual Customer Savings **$108,257**

Lifetime Customer Savings **$1,406,423**



T.A.P.E. INC.

WELLINGTON, OHIO

Efficient Lighting Project

T.A.P.E. Inc. is a supplier of high-quality progressive dies and precision tools that has been family-owned and -operated since 1967. Its goal is to provide customers with quality tools at an affordable price.

PROJECT GOALS: Reduce energy consumption by increasing lighting efficiency.

SOLUTION: Replace outdated, heat-producing metal halide fixtures with efficient alternatives.

PROJECT SUMMARY: With a goal of reducing energy costs at its facility in Wellington, Ohio, T.A.P.E. Inc. called on Efficiency Smart to upgrade its existing lighting with energy-efficient alternatives. After working with Efficiency Smart to complete a project in 2012, T.A.P.E. completed Phase II in 2013, replacing 24 metal halide high-bay lighting fixtures with 12 light-emitting diode (LED) high-bay fixtures.

An Efficiency Smart energy consultant worked with T.A.P.E. to review the project design and provide cost analysis and savings verification for the lighting project. By replacing the outdated and heat-producing metal halide fixtures, T.A.P.E. was able to reduce its overall energy costs and provide a better work environment at its facility. As a result of the successful lighting changes, T.A.P.E. is currently undergoing additional energy efficiency projects.

> "Efficiency Smart has enabled us to make our facility a brighter place to work and saved us money by doing it. They are a blessing to a small shop like us."
>
> ***Connie Bradley, Vice President T.A.P.E. Inc.***

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
23,400

Annual Cost Savings:
$1,500

Lifetime Cost Savings:
$22,600

Payback:
5.86 years

Annual CO_2 Reduction:
44,200 pounds

PROJECT PARTNERS

Forrest Mohrman, President, T.A.P.E. Inc.

Connie Bradley, Vice President, T.A.P.E. Inc.

Steve Pyles, Village Administrator, Village of Wellington

2011-2013 CONTRACT RESULTS

WOODVILLE, OHIO

Residential Products Installed **703**

Residential Energy Savings **44 MWh**

Commercial and Industrial Products Installed **80**

Commercial and Industrial Energy Savings **206**

Lifetime Energy Savings **2,664 MWh**

Annual Savings Achieved **250 MWh**

Energy Savings Target **142 MWh**

Actual Savings vs. Target Savings **177%**

Annual Customer Savings **$28,559**

Lifetime Customer Savings **$332,242**

CO_2 Reduction **380,050 pounds**

Carbon Removed by **141 Forest Acres**

Discounted CFLs Purchased **677**

2011-2013 CONTRACT RESULTS

YELLOW SPRINGS, OHIO

Residential Products Installed **2,243**

Residential Energy Savings **130 MWh**

Commercial and Industrial Products Installed **1,929**

Commericial and Industrial Energy Savings **1,053 MWh**

Lifetime Energy Savings **16,708 MWh**

Annual Savings Achieved **1,183 MWh**

Energy Savings Target **490 MWh**

Actual Savings vs. Target Savings **242%**

Annual Customer Savings **$104,941**

Lifetime Customer Savings **$1,449,450**

ANTIOCH COLLEGE

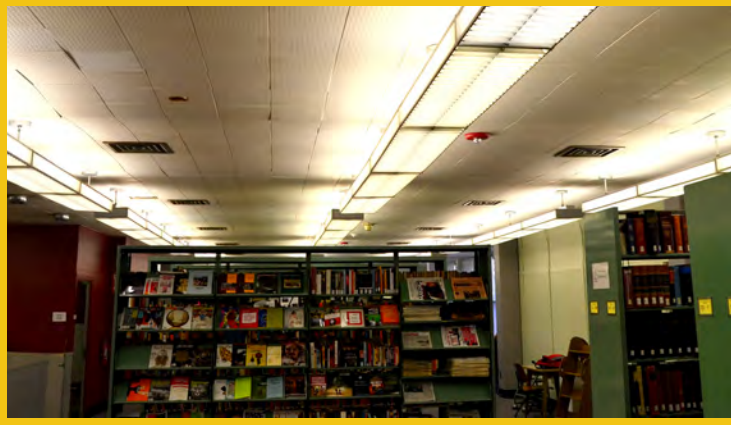
YELLOW SPRINGS, OHIO

Efficient Lighting Project

Antioch College is a small liberal arts institution located on a historic campus in Yellow Springs, Ohio. Founded in 1850, the college has a proud history of educating leaders and contributors to society, including Nobel Laureates, Fulbright Scholars, and MacArthur Fellows, as well as notables in arts and culture, the sciences, the public sector, and business. Antioch College integrates rigorous classroom learning with full-time work and community engagement.

> "Efficiency Smart has dedicated and courteous professionals who helped identify energy-saving opportunities in our buildings, navigated us through the application process, calculated the energy savings, and provided us with payback analysis. They made the experience simple, easy, and efficient."

Reggie Stratton, Facilities Manager
Antioch College



PROJECT GOALS: Reduce energy costs and increase sustainability of the Olive Kettering Library and the Glen Helen Ecology Institute.

SOLUTION: Upgrade existing lighting with more energy-efficient products.

PROJECT SUMMARY: Having previously worked with Efficiency Smart on numerous efficiency projects, Antioch College completed the second phase of a lighting upgrade at its Olive Kettering Library in 2013.

Expanding on the initial project, the college replaced:

> Fifty 75-watt incandescent light bulbs with 19-watt compact fluorescent light bulbs (CFLs)
> Twenty-four 85-watt incandescent floodlights with 19-watt CFLs
> Seventy-five T12 fixtures with efficient T8 fixtures

In addition, lighting was also upgraded at the Trailside Museum at the college's Glen Helen Ecology Institute. The lighting project replaced:

> Fourteen T12 fixtures with efficient T8 fixtures
> Sixty-nine 100-watt incandescent light bulbs with 23-watt CFLs
> Thirty-two 75-watt incandescent light bulbs with 18-watt light emitting diode (LED) surface downlights
> Twelve 75-watt incandescent light bulbs with 15-watt LED surface downlights

Efficiency Smart worked with the institution to validate the energy and cost-saving potential of the projects. Consistent with Antioch College's commitment to sustainability, the upgraded lighting helped reduce its energy consumption while improving lighting.

PROJECT FACTS AT A GLANCE

Annual kWh Savings:
85,300 (combined)

Annual Cost Savings:
$7,400 (combined)

Lifetime Cost Savings:
$73,800 (combined)

Simple Payback:
1.47 years (combined)

Annual CO_2 Reduction:
163,700 pounds (combined)

PROJECT PARTNERS

Reggie Stratton, Facilities Manager,
Antioch College

Nick Boutis, Director,
Glen Helen Ecology Institute

Ann Shaw, Business Manager,
Glen Helen Ecology Institute

Laura Curliss, Former Village Administrator,
Village of Yellow Springs

THE NUMBERS ARE IN AND THE WORD IS OUT.

THE IMPACT IS JUST *beginning.*

$27,243,003
NET LIFETIME ECONOMIC BENEFITS

$69,844,900
LIFETIME CUSTOMER SAVINGS

PROVEN RESULTS

MONEY &ENERGY SAVINGS

101%
EVALUATION, MEASUREMENT, AND VERIFICATION SCORE

> > > > > > > > > > > > > > > >

19
AMBASSADOR OF ENERGY EFFICIENCY AWARDS

94,000+
free light bulbs distributed

LONG-TERM SAVINGS

custom solutions

community outreach

464
COMMERCIAL AND INDUSTRIAL PROJECTS

EFFICIENCY$MART®

smart energy solutions. powerful savings.

877.889.3777 | 1111 Schrock Road | Suite 203 | Columbus, Ohio 43229 | info@efficiencysmart.org | **efficiencysmart.org** |