

Through the Better Buildings Challenge, leaders across the country are taking on important commitments to help meet the President's aggressive goal to double our energy productivity and cut energy waste. These leaders are committing to energy savings across their building portfolios of 20% or more over 10 years. And more than that, they are committing to share the strategies that work with the marketplace. The Better Buildings Challenge is a cornerstone of President Obama's Climate Action Plan, helping the nation to save money on energy bills while reducing carbon pollution.

More than 190 organizations have taken the Better Buildings Challenge, representing more than 3 billion square feet of building space across diverse public and private sectors, more than 600 manufacturing facilities, and close to \$2 billion in energy efficiency financing. The Better Buildings Challenge is growing rapidly. More than 70 new Partners and Allies have joined with the U.S. Department of Energy (DOE) this last year and will offer new energy-saving models in sectors such as multifamily housing. More recently, DOE launched a Water Savings Pilot and will expand the Better Buildings Challenge to include data centers to bring forward energy-saving solutions

Better Buildings Challenge Snapshot

(Figure 1)

| Partners and Allies: 197 in total | Commitments | Progress |
|--|--|--|
| 30 Commercial Partners Commercial real estate, healthcare, hospitality, food service, and retail organizations | <ul style="list-style-type: none"> ▶ 3.3+ billion square feet ▶ 600+ manufacturing facilities ▶ 25 communities engaging local building owners | Average Annual Savings <ul style="list-style-type: none"> ▶ 2.5% energy intensity ▶ \$100 million 110+ Partner Solutions <ul style="list-style-type: none"> ▶ 74 showcase projects complete ▶ 41 implementation models complete |
| 21 Education Partners Higher education institutions and K-12 schools | | |
| 18 Industrial Partners Energy-intensive to light manufacturing | | |
| 57 Multifamily Partners Owners and managers providing market rate and affordable multifamily housing as well as public housing authorities | | |
| 47 State and Local Partners State and local governments, including those working with building owners in their communities | | |
| 21 Financial Allies | <ul style="list-style-type: none"> ▶ \$1.77 billion in financing | <ul style="list-style-type: none"> ▶ \$1.72 billion extended ▶ 2 implementation models complete |
| 3 Utility Allies Investor-owned and public power | <ul style="list-style-type: none"> ▶ Provide customers with easy access to energy bill data; help customers increase energy savings in millions of building square feet | <ul style="list-style-type: none"> ▶ 5 implementation models complete |
| Federal Agencies Federal building upgrades using performance contracting | <ul style="list-style-type: none"> ▶ Expanded original \$2 billion to include projects through 2016 | <ul style="list-style-type: none"> ▶ \$1.4 billion awarded |

Recognizing Leadership

"Over the last two years, President Obama's Better Buildings Challenge has encouraged greater energy efficiency across the nation, moving America toward a cleaner energy economy while saving families money and giving U.S. businesses an edge in the global market."



▶ Energy Secretary Ernest Moniz

in these areas. The Federal Government is also demonstrating leadership and has awarded \$1.4 billion in performance contracts to date.

Better Buildings Challenge Partners are transparently sharing the results of their portfolio-wide energy management efforts, and are on track to meet their energy performance goals. Partners are continuing to demonstrate that improvements in energy intensity of more than 2.5% per year are achievable and cost effective. If all U.S. commercial, multifamily, and industrial buildings and facilities improve at this rate, savings would total more than \$80 billion per year, after 10 years.

Energy-Saving Strategies Deliver Results in 2013

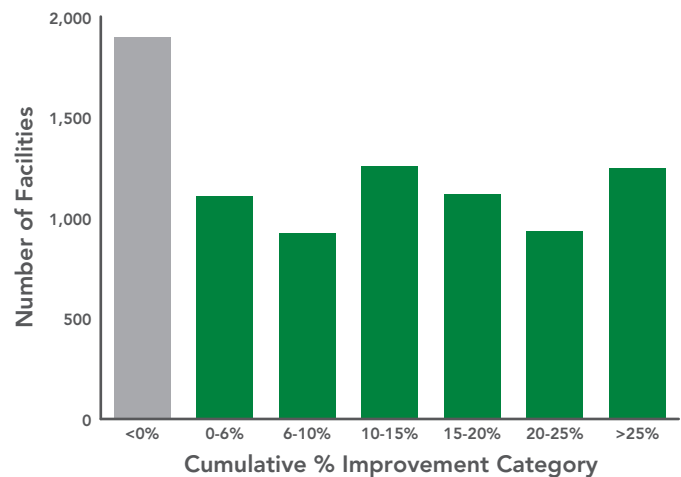
Partners in the Better Buildings Challenge take on aggressive goals and document progress toward their goals by sharing information on the energy intensity of their portfolios. Progress is measured through improvements in energy intensity against a baseline year. On average through 2013, Partners have improved the energy intensity, or energy performance, of their portfolios by more than 2.5% per year since their baseline years, in line with President Obama's goal to reduce the energy intensity in the commercial and industrial sectors by 20% by 2020. Through participation, Partners have saved 36 trillion Btus and \$300 million since the Better Buildings Challenge began. To date, Better Buildings Challenge Partners have shared energy performance results for over 1.3 billion square feet, across more than 9,000 facilities. Of these facilities, more than 2,100 have been improved by 20% or more, and more than 4,500 have been improved by at least 10% since their baseline year.

In addition to setting ambitious energy-saving targets, Better Buildings Challenge Partners share the strategies and steps they are taking to achieve their goals. Partners develop implementation models to document successful approaches that overcome barriers to energy efficiency. These models, which have more than doubled in the past year, offer a playbook to replicate the proven practices of Better Buildings Challenge Partners. Partners also develop showcase projects, many with savings of 20-40%, that highlight energy-saving success stories at individual buildings and plants, to demonstrate to the market what is possible when leading-edge technical solutions are implemented at the facility level. In addition, Utility Allies in the Better Buildings Challenge have shared innovative programs and strategies to help customers increase their energy savings. Collectively, these solutions have been disseminated to thousands of organizations through webinars, conferences, and media outlets to encourage others to replicate the models widely.

In 2013, Better Buildings Challenge Financial Allies collectively placed over \$555 million in financing for energy efficiency and distributed generation projects in the U.S. commercial, industrial, residential, and institutional building sectors. Since the launch of the program, Financial Allies have placed more than \$1.72 billion in funding, reaching 97% of their

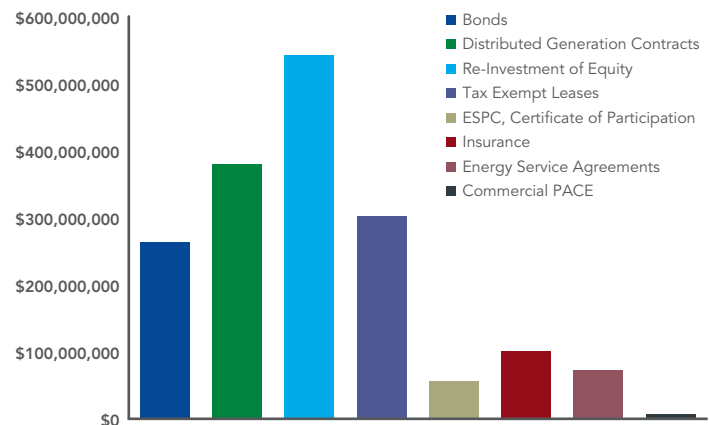
Facility-level Percent Improvements

(Figure 2)



Financial Ally Products Used

(Figure 3)



collective \$1.77 billion goal. Financial Allies have employed a wide range of innovative financial products, with equity re-investment, distributed generation contracts, and tax exempt leases being the products through which the most funding has been placed (see Figure 3). In the past year, seven new Financial Allies joined the Better Buildings Challenge, the program expanded its focus to include institutions serving the multifamily residential sector, and recently some Allies announced new financing goals.

Diverse Portfolios, Shared Strategies

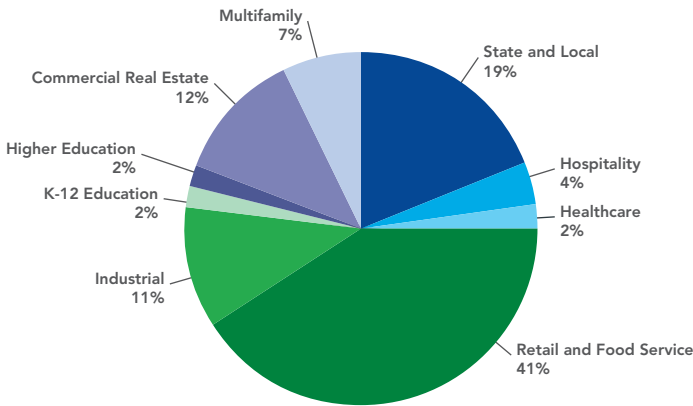
Better Buildings Challenge Partners represent the building and industrial stock in the United States, comprising a diverse array of organization sizes, industry sectors, business models, government types, and educational institutions. The distribution of Partners by market sector is illustrated in Figure 4. One notable change in the past year is the expansion of the program to include multifamily housing, which now represents 7% of the program’s floor area. The Retail and Food Service sector has experienced significant growth in the past year, with the inclusion of Walmart with 850 million square feet committed. In the public sector, the City of Atlanta has expanded its commitment from 33 to 50 million square feet and Fort Worth has more than tripled to more than 18 million square feet by increasing their partnerships

with the private sector. Figure 5 illustrates the diversity in organization and portfolio size by market sector. Among multifamily Partners, for example, the Housing Authority of the City of Palatka, FL is at one end of the range with 22 thousand square feet and Balfour Beatty Communities is at the other with 50 million square feet.

While diverse in terms of market sector and organization size, Better Buildings Challenge Partners are alike in many ways. These energy efficiency leaders employ shared strategies that contribute to their success, shown in Figure 6. They start by setting ambitious goals, and then work to improve energy performance by leveraging data, improving technology, and promoting operational changes within their organization.

Percent of Floor Area by Market Sector

(Figure 4)



Range of Portfolio Commitment by Market Sector

(Figure 5)

| Smallest | Sector | Largest |
|---------------------|-------------------------|---------------------|
| 5 million sq. ft. | Commercial Real Estate | 100 million sq. ft. |
| 13 million sq. ft. | Retail and Food Service | 850 million sq. ft. |
| 8 million sq. ft. | Healthcare | 35 million sq. ft. |
| 10 million sq. ft. | Hospitality | 79 million sq. ft. |
| 1.3 million sq. ft. | Higher Education | 20 million sq. ft. |
| 704,000 sq. ft. | K-12 School | 24 million sq. ft. |
| 120,000 sq. ft. | State and Local | 123 million sq. ft. |
| 22,000 sq. ft. | Multifamily | 50 million sq. ft. |
| 1 plant | Industrial | 159 plants |

Learning from Better Buildings Challenge Partners: 5 Habits of Energy Efficiency Leaders

(Figure 6)



Know the goal.

Set a quantifiable and ambitious goal that provides definition and clarity for action, and achieve it



Data matters.

Measure building performance and use the information to better manage operations and save money



Look beyond technology.

Combine technology advances with organizational commitments to actively engage staff and customers



It takes an (energy) champion – and a team.

On-site energy “champions” maximize the benefits of energy management by integrating energy-saving practices into operations



Learn, teach, and evolve.

Adapt to change and stay on your toes by seeking out best practices from others and sharing with peers

Visit <http://www4.eere.energy.gov/challenge/habits-of-leaders> to see examples of successful approaches from Better Buildings Challenge Partners.

Achieving Savings with Portfolio-wide Strategies

Better Buildings Challenge Partners are demonstrating that substantial energy savings are possible. Some organizations that have already met or exceeded goals have set the bar even higher by committing to new goals. Through 2013, five Partners have achieved portfolio-wide energy savings of more than 20% compared to their baseline year, and another 31 Partners have achieved portfolio-wide energy savings of more than 10% compared to their baseline year. As improvements are made, Partners are using energy performance data to inform their future decisions and prioritize their energy upgrade projects to meet the needs of their organizations. A few of the many success stories are highlighted below.



24%

Commercial

Best Buy has achieved a 24% reduction in total energy consumption from a 2008 baseline across its 47 million square foot commitment to the Better Buildings Challenge. Best Buy's portfolio-wide energy reduction successes have been achieved by broadly implementing proven strategies, like an enterprise energy management system, skylights, and a dimmable fluorescent lighting system to harvest daylight. These efforts are complemented by Best Buy's mission to help consumers understand how to own, use, and maintain energy-efficient technologies.



Lend Lease

16%

Lend Lease, a fully integrated property solutions and infrastructure provider, operates around the world and employs over 18,000 people. The organization has achieved a 16% reduction in energy use since 2008 across its 61 million square foot U.S. military housing portfolio, across 41,000 homes. Lend Lease has made these savings through green retrofits to existing structures, developing an energy load reduction program, focusing on renewable energy solutions such as photovoltaic energy generation, solar hot water, and ground source heating and cooling technologies, as well as deploying home real-time energy management systems. One example, the Atlantic Marine Corps Communities LLC – Laurel Bay, SC showcase project, reduced actual energy use by about 40%.



16%

Macy's Better Buildings Challenge commitment of 173 million square feet, covering more than 850 commercial buildings, is one of the largest in the program. Since its baseline year of 2009, this department store retail company has achieved a 16% reduction in energy intensity, through an approach that combines technological solutions, such as the use of LED technology for accent lighting, with an advanced Energy Information System.



UNIVERSITY of
CALIFORNIA
IRVINE

23%

Education

University of California, Irvine (UC Irvine) committed 7 million square feet to the Better Buildings Challenge, and has already realized a 23% reduction in energy intensity from a 2008 baseline. The university's Smart Labs Program implementation model features an integrated approach to laboratory energy management that uses control and sensor technologies to achieve significant savings. Results demonstrate that energy savings of as much as 60% are possible on an annual basis, while upholding the strict safety requirements of laboratory spaces. UC Irvine's Natural Sciences II showcase project provides a deeper look at the Smart Labs process, with calculated actual annual energy savings of \$180,000 for the laboratory building.

Achieving Savings with Portfolio-wide Strategies



17%

Camas School District serves over 6,000 students in the State of Washington and includes 10 schools totaling approximately 990,000 square feet across school buildings and support facilities. In 2013, Camas School District reduced its portfolio-wide energy use by approximately 17% from its 2009 baseline year, helped by a Resource Conservation Management Program policy adopted in the spring of 2009. The focus of the Resource Conservation Management Program is long-term, sustainable measures, practices, and procedures that reduce consumption of natural resources. Camas School District has also shared two showcase projects, Lacamas Heights Elementary Modernization and J.D. Zellerbach Administration Headquarters, expected to save 21% and 31%, respectively.



16%

Michigan State University (MSU) has achieved a 16% reduction in energy usage across a 20 million square foot commitment. These savings were achieved by submetering buildings, implementing energy conservation measures, and continually measuring the performance of commissioned buildings and systems to ensure sustained efficiency. One example of MSU's approach is the Anthony Hall showcase project, which is expected to realize savings of 34%.



14%

Poudre School District, located in Fort Collins, CO, is working across 50 schools totaling 3.8 million square feet, and has achieved a 14% reduction in energy use since 2008. At Poudre High School, Poudre School District's showcase project, a whole-building approach to energy efficiency was completed including a life cycle cost analysis, energy modeling, and a building envelope assessment, expected to result in an energy savings of 30%. The District is also sharing its plan to facilitate organizational change among district leaders, school officials, and employees to garner support for the school's renovation efforts.



34%

Industrial

Cummins has exceeded the energy efficiency goal it first set with DOE, achieving a 34% reduction in energy intensity from a 2005 baseline across 104 facilities, including 19 manufacturing plants. The company has launched a comprehensive energy management training program that provides instruction on best practices, key tools, and standardized methods to energy leaders at its most energy-intensive sites. At the Jamestown Engine Plant, Cummins anticipates that the savings from energy efficiency-specific measures will be more than 68 billion Btus and result in \$661,000 a year in cost savings, allowing the company to pay off the \$3.3 million energy efficiency investment in five years.



32%

Legrand North America has achieved a 32% reduction in energy intensity across 14 facilities, exceeding the initial 25% target it set in 2011. Legrand has now set a new goal to improve energy intensity by an additional 20% by 2022 across its U.S.-based facilities, over a 2012 baseline. To help meet its goal, Legrand has launched a corporate-wide submetering system that is generating data to help uncover new energy-saving opportunities. It implemented a variety of energy efficiency measures at its West Hartford, CT, headquarters to improve energy intensity at that location by 10% over two years.

Achieving Savings with Portfolio-wide Strategies



18%

Schneider Electric has improved its energy intensity by close to 18% across 34 facilities, including 25 manufacturing plants. At its Smyrna, TN, plant, the company has improved energy performance by about 30% through a combination of energy efficiency measures and the installation of a large solar array. Schneider's implementation model highlights a sophisticated approach to track energy intensity improvement at the facility level, while normalizing for production, weather, and other factors.



15%

State and Local

The City of Beaverton, OR, and its partner the Beaverton School District, has reduced its energy use 15% since 2009 in over 1.6 million square feet. It has made great strides toward its Better Buildings Challenge goal through the implementation of a variety of strategies, including the retro-commissioning of buildings and participating in a pioneering, pilot program made available by NorthWrite and the Energy Trust of Oregon. Real-time energy data made available through this program helps identify deviations from normal usage patterns, and is one of the reasons why the City Library showcase project is expected to result in a 20% energy use reduction.



13%

The State of Delaware has achieved a 13% reduction in energy intensity over an 8 million square foot commitment, since its baseline year of 2008. Energy savings have been achieved by implementing lighting and plumbing retrofits across many facilities, heating, ventilation, and air conditioning (HVAC) and building automation system upgrades in several others, and an energy awareness program focused on no-cost opportunities to reduce excess consumption. By implementing measures like these at the Carvel State Office Building, the State is expecting to reduce energy use by 26%, saving over \$225,000.



11%

The City of Hillsboro, OR, has achieved an 11% improvement in energy efficiency across its 480,000 square foot portfolio since 2009, by implementing lighting retrofits, HVAC replacements, and controls upgrades at numerous city facilities. It has also implemented an energy management plan focused on low-cost opportunities for savings and energy use awareness and reduction. The City created a dedicated Sustainability Revolving Fund to finance projects that address energy efficiency and other goals in the City's Sustainability Plan. The fund was originally seeded and is now replenished with savings from energy efficiency and other sustainability projects. At the Shute Park Library, energy efficiency measures included in a remodel replacing HVAC, electrical, and roof systems are expected to save 20% of the facility's energy use.

Sharing Innovative Solutions

Better Buildings Challenge Partners are employing innovative strategies to achieve their energy reduction goals. Partners are also helping others to achieve their energy-saving goals by sharing the approaches, tools, and resources that will allow others to replicate their solutions. Currently, more than 40 implementation models have been developed with the key details behind successful approaches to energy efficiency. These solutions help overcome barriers such as mobilizing capital, getting buy-in from senior leadership, accessing energy performance data, or picking the right technologies for the job.

The Partners below demonstrate the diverse array of business types facing different barriers that have shared proven, replicable implementation models, exemplifying the mission of the Better Buildings Challenge:



Cleveland Clinic Foundation – Clinician Engagement: Cleveland Clinic Foundation lacked buy-in from clinicians around resource conservation in operating rooms. To address this barrier, the hospital implemented a “Greening the OR” initiative by convening a cross-functional committee to offer training and pilot a number of energy, water, and waste reduction projects. As explained in their implementation model, Cleveland Clinic’s solution has helped them increase resource awareness, engage clinical staff, and better measure energy and water reductions.



Delaware State University (DSU) – Mobilizing Capital: DSU faced strict debt capacity limits set by the State of Delaware, making it difficult to borrow sufficient capital to implement a broad program of energy efficiency projects on campus. Utilizing previously restricted funds, the University was able to create a revenue-neutral transaction that did not affect the debt capacity. DSU’s implementation model, titled “On-Balance Sheet, Off-Debt Capacity Performance Contracting,” offers a unique financing approach for state universities that is funding efficiency projects at a total cost of \$19.3 million with expected savings of \$24.6 million over 20 years.



The City of El Paso – Organizational Buy-in: After realizing lower energy performance than expected in the City’s first LEED Gold-certified library, the City of El Paso decided to focus on behavioral energy conservation approaches by launching an energy challenge across all the libraries. El Paso’s Employee Behavioral Change model provides details on a six-month Library Energy Challenge that achieved a 10% energy use reduction in the City’s 12 libraries by engaging City employees and library users in behavioral conservation measures.



The City of Gillette – Centralized System for Data Analysis: The City of Gillette lacked a centralized system to manage its HVAC and related equipment and faced a perceived organizational risk around investments in more efficient equipment. As detailed in its Inventory and Tracking Process implementation model, the City created a geographic information system-based inventory and depreciation schedule to effectively manage the maintenance and repair of City Hall’s HVAC equipment and proactively prepare for associated capital needs.

Sharing Innovative Solutions



HEI – Portfolio-wide Standard Operating Procedures: HEI's second implementation model, titled "Chasing Quarters with Energy Set-Points," describes how the company developed and certified building-specific temperature set-points, then implemented portfolio-wide standard operating procedures. These low-cost adjustments are realizing energy and cost savings across a portfolio of properties without compromising guest comfort.



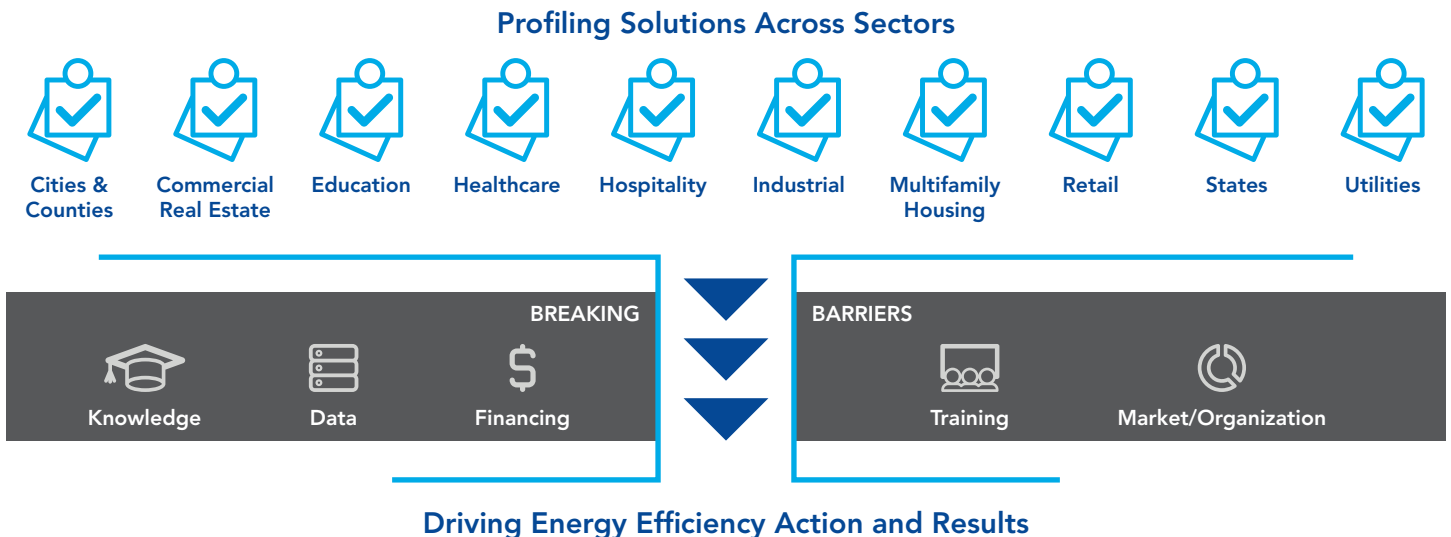
Saint-Gobain – Integrating Energy Efficiency into Corporate Culture: Saint-Gobain's Energy Champions at All Plants model shows how they fully integrated energy efficiency into all manufacturing operations by appointing an energy champion at every plant as part of their corporate energy management strategy. This approach is leading to continuous energy improvement across the company and a growing corporate culture that values energy efficiency.



TIAA-CREF – Visibility into Energy and Water Usage: TIAA-CREF lacked visibility into the energy and water usage of the third party-managed assets. To address this barrier, the company added sustainability metrics to the formal performance assessment of third-party property managers. As explained in their Data Update and Certification Scorecard implementation model, TIAA-CREF's solution has helped them to better understand resource costs, estimate savings associated with improvement projects, and verify that projected results are achieved.

Better Buildings Challenge Implementation Models

(Figure 7)



Showcasing Real Results

Better Buildings Challenge Partners demonstrate “what’s possible” in individual facilities by highlighting their innovative, multi-measure approaches to energy efficiency. Partners set ambitious goals for these projects and share the strategies and technologies selected to meet them. Following completion, Partners share a year’s worth of facility-level data with DOE and the actual energy and cost savings are published online.

To date, Partners have shared more than 70 showcase projects featuring facilities in more than a dozen market sectors, from lodging, offices, and education facilities, to public safety, warehouses, and public assembly spaces. The following organizations have completed showcase projects with actual energy savings as high as 41%. On average, showcase projects are achieving savings of 29%.

Alcoa completed a highly efficient recycling plant at the end of 2012 that uses a novel technology to reduce energy use by more than 30%.

Ascension Health’s Dell Children’s Medical Center of Central Texas reduced energy consumption by 25% through efficiency measures implemented in a recent expansion of the hospital complex.

The City of Atlanta, GA’s Boisfeuillet Jones – Atlanta Civic Center features building automation controls, new water heaters, and lighting retrofits that have improved energy consumption by 37%, saving over \$130,000 per year.

The District of Columbia’s Hotel Monaco has reduced energy use 28%, annually saving \$447,000 by installing new equipment and implementing a wide range of energy efficiency upgrades.

Forest City’s South Bay Galleria mall has achieved a 25% energy reduction through the installation of multi-dimensional smart building controls, saving almost \$600,000 a year.

Kohl’s Niles, OH, store has reduced energy use by 38%, saving \$65,000 a year, and is an example of its successful approach to embed a finance employee in the corporate Energy Team.

Legrand North America’s headquarters facility has undergone a series of upgrades that have resulted in a 10% improvement in energy efficiency and over \$230,000 saved annually.

Lend Lease has saved 38% in energy use at eight houses in the Laurel Bay Marine Corps housing community, and is replicating the approach in more than 1,000 homes in the community.

Macy’s Metro Center has realized a 30% energy reduction, saving over \$220,000 a year by installing HVAC dampers and LED lighting.

Spokane County’s Regional Health District Building replaced aging infrastructure and implemented facility improvements, resulting in 23% energy savings and over \$40,000 annual cost savings.

Staples’ Coppell Fulfillment Center has realized actual energy savings of 26%. The approach taken is shared in detail through Staples’ Eco-Treasure Hunt implementation model.

The State of North Carolina has achieved annual energy use and cost savings of 36% and \$35,000 at an abandoned furniture warehouse that was transformed into a state-of-the-art energy-efficient learning laboratory.

The Tower Companies recently renovated The Millennium Building with HVAC controls, LED lighting, and a real-time energy management program, resulting in a 20% reduction in energy use and savings of \$200,000 per year in the office building.

Transwestern’s Pennzoil Place and 815 Connecticut Avenue are examples of the significant energy savings that Transwestern is achieving across its portfolio. These facilities have achieved 21% and 36% energy use reduction, respectively, combining for over \$1.2 million in annual cost savings.

University of Utah’s Dumke Health Professions Education Building underwent comprehensive improvements to its HVAC system, resulting in a 41% reduction in energy use and over \$50,000 a year in cost savings.

Wyndham’s Philadelphia-Mount Laurel hotel has achieved actual energy savings of 27% and \$34,000 annually through a retrofit of the lighting and HVAC systems.

Supporting Energy Efficiency Investment

Financial Allies support energy efficiency investments by making their products available and transparently demonstrating their approaches and accomplishments by sharing implementation models on the program's website. The following Allies have met their commitments to invest in energy efficiency projects since joining the Better Buildings Challenge.



Citi, a leading global bank, has established an energy efficiency program that integrates the capabilities of multiple business and operations units to provide clients with a range of solutions required for the fragmented, “no silver bullet” energy efficiency and distributed generation markets. In the past year, Citi provided a \$100 million warehouse facility to Kilowatt Financial LLC, a Minneapolis-based provider of solar-power leases, to finance energy-efficiency projects, up to \$30,000 each for U.S. homeowners, and a similar facility to Renewable Funding for the Warehouse for Energy Efficiency Loans (WHEEL); both are targeting securitizations in 2014. Citi also worked with the New York State Energy Research and Development Authority (NYSERDA) to provide \$24.3 million in its first-ever issuance of revenue bonds to finance loans for consumers across the state for residential energy efficiency improvements. Citi has invested more than \$570 million in energy efficiency and distributed generation projects, exceeding its original \$500 million commitment to the Better Buildings Challenge.



Green Campus Partners, LLC (GCP) is an efficiency and clean energy project finance and investment firm that enables its clients to achieve their energy and facility infrastructure objectives and improve enterprise value by implementing or optimizing energy efficiency, renewable energy, and distributed generation projects. GCP more than doubled its original \$200 million Better Buildings Challenge commitment and has placed more than \$430 million in energy efficiency financing across the governmental, commercial, industrial, and educational centers across the country using a mixture of bonds, energy service performance contracts, and tax-exempt leases.



The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) has worked with existing real estate-focused investment funds to invest over \$300 million of capital in energy-efficient retrofits of commercial, multifamily, institutional, and public buildings, more than doubling its original \$150 million commitment to the Better Buildings Challenge and making investment managers aware of the many compelling investment opportunities in building retrofits and infrastructure. In addition, the AFL-CIO Housing Investment Trust has invested \$542 million of union pension capital in energy-efficient rehab and retrofit projects across America.



Energi, a Massachusetts-based Industrial Reinsurance Company, is working closely with financial institutions to provide risk mitigation on retrofit projects to protect debt and equity capital. This included partnering with Metrus, another Better Buildings Challenge Financial Ally, to provide \$8.5 million in energy efficiency financing and insurance for the Kuakini Medical Center in Honolulu, HI. Energi has placed more than \$100 million in energy efficiency insurance financing, more than doubling its original \$50 million Better Buildings Challenge commitment.

Recognizing Leadership

In the past year, Better Buildings Challenge Partners and Allies have been recognized for their energy efficiency innovations and leadership in national, regional, business, and trade media. Examples include *USA Today's* article "Companies share energy efficiency secrets," *The New York Times'* article "Close to Its Home, Walgreens Tests Energy-Saving Ideas," and a variety of bylined articles by Partners appearing in publications ranging from *Triple Pundit* to *Commercial Construction and Renovation*.

Recent Partner media events highlighted energy savings from showcase projects and featured state and local government leaders and senior DOE officials.

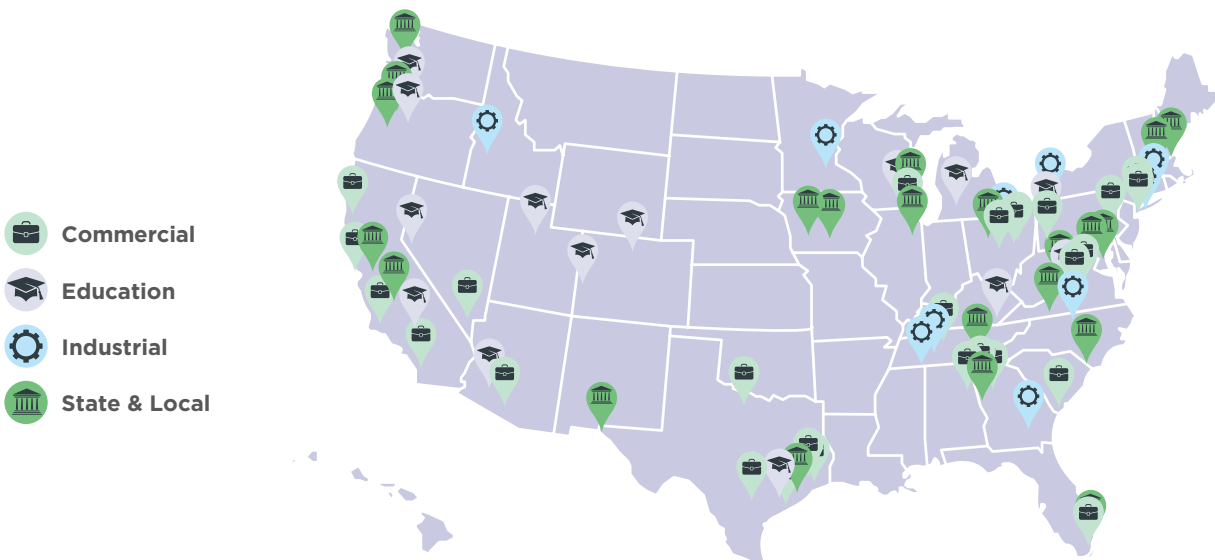
- ▶ DOE toured Whole Foods Market in Brooklyn and its energy-saving technologies, including a rooftop greenhouse to grow fresh produce and help cool or warm the store depending on the season.
- ▶ A Staples' event in Coppell, TX, featured a host of energy efficiency measures in its fulfillment center, including LED lighting in loading docks and high-efficiency ceiling fans.

- ▶ The City of Los Angeles unveiled one of its biggest energy efficiency wins, the historic Central Library, which is on track to save about \$175,000 in energy costs per year.
- ▶ Alcoa provided a tour of its Cleveland facility and recent energy efficiency improvements and was profiled in a video for the American Energy and Manufacturing Competitiveness Summit.
- ▶ The City of Milwaukee provided a tour of its Central Library and discussed the energy upgrades, drawing significant local media.
- ▶ DOE toured Nissan's new paint plant in Smyrna, TN, which is projected to cut energy use by almost a third compared to its predecessor.

In addition to traditional media, the Better Buildings Challenge's social media presence includes daily Twitter updates from DOE, Partners, and Allies. The Better Buildings Challenge has hundreds of followers and continues to grow!

U.S. Map with Showcase Projects

(Figure 8)



Learn More about Better Buildings Challenge Leaders

- ▶ Partners in the News: <http://www4.eere.energy.gov/challenge/media-room/partners-in-the-news>
- ▶ Featured Videos: <http://www4.eere.energy.gov/challenge/media-room/video>
- ▶ Twitter: @BetterBldgsDOE

What's New?

The Better Buildings Initiative is expanding in strategic sectors and focused activities to improve national energy productivity and cut energy waste:

Multifamily Sector Expansion. In the United States, about a quarter of households live in multifamily housing such as apartments and condominiums. Improving the energy efficiency of these buildings by 20% would save nearly \$7 billion in energy costs each year and cut greenhouse gas emissions by 430 million tons of carbon dioxide. Leading multifamily sector organizations representing over 260 million square feet of housing have taken the Better Buildings Challenge. These Partners represent a thorough cross-section of the entire multifamily industry, providing market rate, affordable, and public housing.

As part of the Better Buildings Challenge, the new multifamily Partners will showcase innovative strategies to boost energy efficiency, including lighting improvements, heating and cooling system upgrades, installing rooftop solar systems, and supporting new financing for energy retrofits and green construction. These Partners will also share best practices and lessons learned overcoming split-incentives, complex financing and ownership structures, utility partnerships, and resident engagement—serving as a model for the broader U.S. multifamily housing industry.

The expansion of the Better Buildings Challenge to include multifamily housing is the result of a renewed partnership with the U.S. Department of Housing and Urban Development (HUD) under President Obama's Climate Action Plan. HUD, through its role in the multifamily industry, is providing technical assistance and policy incentives for multifamily Partners to help them reach their energy savings goals.

Water Savings Pilot. DOE is helping Partners demonstrate successful approaches to saving water and decreasing their utility bills through the Better Buildings Challenge Water Savings pilot. The commercial and industrial sectors account for more than 25% of the withdrawals from public water supplies and many organizations in these sectors may have savings opportunities of 20 to 40%. The efficient use of water resources results in lower operating costs, a more reliable water supply, and improved water quality. Additionally, because energy is required to transport and treat water, saving water

Partners Committed to Water Savings Pilot

- ▶ Aeon
- ▶ Campus Crest Communities
- ▶ City of Atlanta, GA
- ▶ Cummins, Inc.
- ▶ Eden Housing
- ▶ Ford Motor Company
- ▶ City of Fort Worth, TX
- ▶ General Motors
- ▶ HARBEC
- ▶ Kohl's Department Stores
- ▶ NHT/Enterprise Preservation Corporation
- ▶ Nissan North America
- ▶ Poudre School District, CO
- ▶ Saint-Gobain Corporation
- ▶ Staples
- ▶ TIAA-CREF
- ▶ Tonti Properties
- ▶ Transwestern
- ▶ Trinity Management
- ▶ City of West Palm Beach, FL

also saves energy. Through this pilot, DOE will work with a small, diverse group of Better Buildings Challenge Partners to expand their resource management strategies to include water in addition to energy, set water savings goals, track progress, and showcase solutions. The pilot will be assessed in early 2015 and recommendations made for next steps.

Data Center Partners. DOE is working to expand the Better Buildings Challenge to include owners and operators of data centers. Energy use in the nation's data centers is increasing by 9.5% a year and there are many opportunities to cost effectively improve the energy efficiency of data centers by at least 20%. If the goal is met by all U.S. data centers, the savings would total almost \$4 billion. Expanding the Better Buildings Challenge to include large, medium, and small data centers is a chance for both the federal and private sector data center communities to gain control over the growth of the energy costs associated with their data centers and show leadership in a highly visible area of operations.

Other Better Buildings Partnerships

The Better Buildings Initiative is a powerful platform to drive greater U.S. energy efficiency. Through the Initiative, DOE is deploying a broad, multi-strategy approach to catalyze change and accelerate investment in energy efficiency. While the Better Buildings Challenge is focused on developing innovative, replicable solutions with market leaders, DOE is also engaging other sectors and stakeholders to save energy in their daily operations. Across all of these efforts, collaboration is encouraged and best practices shared to facilitate the development and use of energy-saving solutions.

Better Buildings Accelerators. Launched in December of 2013 as part of the President's Climate Action Plan, the Better Buildings Accelerators are fixed-term efforts designed to demonstrate specific innovative policies and approaches to accelerate investment in energy efficiency. There are three Better Buildings Accelerator efforts currently underway:

- ▶ The Better Buildings Energy Data Accelerator, with 37 local government and utility Partners participating, is designed to demonstrate low-cost, standardized approaches for building owners to access whole-building energy usage data for the purpose of whole-building energy performance benchmarking. A specific focus is on providing building owners with aggregated energy usage information in multi-tenant buildings.
- ▶ The Energy Savings Performance Contracting (ESPC) Accelerator, with 19 state and local government and school district participants, is designed to expand the use of ESPC by federal, state, and local governments and K-12 schools. It aims to catalyze public sector energy efficiency investments of \$2 billion from January 2013 to December 2016 through the use of innovative and best practice approaches to enhance ESPC programs.
- ▶ Superior Energy Performance (SEP) is a certification and recognition program for facilities demonstrating energy management excellence and sustained energy savings. The Better Buildings Industrial SEP Accelerator is designed to demonstrate cost savings from implementing SEP enterprise-wide, as well as to demonstrate strategic energy management through SEP as an effective ratepayer-funded energy efficiency program offering for industrial facilities. There are two engagement opportunities: Ratepayer-funded Program Partners are utilities and energy efficiency program administrators that agree to work toward deployment of SEP to manufacturers across their service territories. Enterprise-wide offers Partners an opportunity to implement

International Organization for Standardization (ISO) 50001 and SEP enterprise-wide, such as across a corporation, business unit, or multiple plants to achieve greater energy cost savings. There are three organizations committing to the ratepayer-funded pathway, and six organizations participating in the enterprise-wide pathway.

The **Better Buildings Alliance** includes more than 200 organizations, representing almost 10 billion square feet of commercial building space in both the public and private sectors. These organizations work in collaboration with DOE through Project Teams focused on specific technology and market-related solutions that are then adopted by members. Members are asked to set an energy-saving goal (encouraged to be at least 2% per year), provide updates on progress toward that goal, and implement at least one Better Buildings solution per year. To date, the Better Buildings Alliance has issued two technology challenges, two technology adoption campaigns, and 10 procurement specifications to help companies select efficient heating, cooling, lighting, refrigeration, and water heating technologies. If everyone switched today to technologies that meet these specifications, savings would equal \$17 billion or more than 2.0 quads of source energy every year.

The Better Buildings Alliance recently partnered with the Institute for Market Transformation and organizations supporting GreenLeaseLibrary.com to create the "Green Lease Leader" recognition program. Guided by an industry advisory board and supported by leading industry organizations, this program increases the visibility and importance of green leasing and drives its adoption in the market by recognizing those who have had successes in this space. The first class of awardees includes 14 organizations representing over 400 million square feet of commercial real estate.

The **Better Buildings, Better Plants Program** now includes more than 120 manufacturers, covering more than 1,800 plants, which account for about 8% of the total U.S. manufacturing energy footprint. DOE works with these companies to establish energy performance metrics, improve data collection and analysis capabilities, and organize plant-level training. Companies participating in Better Plants have reported approximately \$1 billion in cumulative energy savings over the last three years.

Other Better Buildings Partnerships

Better Buildings Workforce. DOE is partnering with the National Institute of Building Sciences to engage industry experts in the review and revision of a set of draft Job/Task Analyses (JTAs) as the first step in developing new Better Buildings Workforce Guidelines for five key commercial building energy occupations. DOE anticipates revisions to these JTAs, which are a foundation to training and certification programs, will be complete in mid-2014. The five occupations are:

- ▶ Commercial Building Energy Auditor
- ▶ Building Commissioning Professional
- ▶ Energy Manager
- ▶ Federal Facility Manager
- ▶ Building Operations Professional

Better Energy Performance Information. DOE is continuing the development of a Commercial Building Energy Asset Score (Asset Score) tool to allow building owners and managers to more accurately assess building energy performance. The Asset Score will evaluate the physical characteristics and as-built energy efficiency of buildings and identify cost-effective energy-efficient improvements that, if implemented, can reduce energy bills and potentially improve building asset value.

To learn more about the Better Buildings Initiative, go to: energy.gov/betterbuildings. In addition, follow us on Twitter: [@BetterBldgsDOE](https://twitter.com/BetterBldgsDOE).

Commercial Partners

Ascension Health**
Best Buy***
Cleveland Clinic Foundation***
Deutsche Asset & Wealth Management
Forest City Enterprises**
HEI Hotels & Resorts***
IHG (InterContinental Hotels Group)***
Kohl's Department Stores***
Lend Lease**
Macy's***
New York Presbyterian Hospital*
Parmenter Realty Partners**
PNC Financial Services Group*
Prologis**
Shorenstein Properties**
Sprint**
Staples***
Starbucks Coffee Company
The Tower Companies***
TIAA-CREF***
Transwestern**
UPMC: University of Pittsburgh Medical Center**
USAA Real Estate Company*
Walgreens Co.*
Wyndham Worldwide***

Education Partners

Alachua County Public Schools*
Allegheny College***

Camas School District, WA**
Delaware State University*
Douglas County School District, NV**
Dysart Unified School District 89, AZ**
Fort Atkinson School District, WI**
Houston Independent School District, TX
Indian River Central School District, NY*
Kentucky Community and Technical College System*
Mesa County Valley School District 51, CO
Michigan State University***
Portland Public School District, OR**
Poudre School District, CO***
University of California, Irvine***
University of Hawaii at Manoa
University of Utah***

Industrial Partners

3M***
Alcoa***
Briggs & Stratton**
Cummins, Inc.***
Ford Motor Company*
GE*
The J.R. Simplot Company**
Johnson Controls*
Legrand North America***
Nissan North America**

Saint-Gobain Corporation***

Schneider Electric***

Multifamily Partners

ACTION-Housing Inc.
Aeon
Atlanta Housing Authority
BRIDGE Housing Corporation
Campus Crest Communities
Columbia Residential Community Housing Partners
Corcoran Management
Denver Housing Authority
EAH Housing, Inc.
East Bay Asian Local Development Corporation
Eden Housing
Green Coast Enterprises
Hispanic Housing Development Corporation
Homes for America
Housing Authority of City of Baltimore, MD
Housing Authority of City of Bristol, CT
Housing Authority of City of Buena Vista, CA
Housing Authority of City of Freeport, IL
Housing Authority of City of Helena, MT
Housing Authority of City of Palatka, FL
Housing Authority of City of Philadelphia, PA

Housing Authority of Knox County, IN
Housing Partnership Equity Trust
Jersey City, NJ, Housing Authority
LINC Housing Corporation
McCormack Baron Salazar
Mercy Housing, Inc.
Multi-Family Mission Ministries
National Church Residences
NHP Foundation
NHT/Enterprise Preservation Corporation
Preservation of Affordable Housing
REACH CDC
Retirement Housing Foundation
Rural Ulster Preservation Company
San Antonio Housing Authority
Satellite Affordable Housing Associates
Tampa Housing Authority
Tenderloin Neighborhood Development Corporation

Key

* Accomplishment(s):

- ▶ energy data reported
- ▶ showcase completed
- ▶ implementation model completed

The Community Builders, Inc.
The Economic Development Authority of the City of Mankato, MN
The Evangelical Lutheran Good Samaritan Society
Tonti Properties
Trinity Management
Village of Hempstead Housing Authority
Volunteers of America
WinnCompanies

State and Local Partners

Arlington County, VA**
Arvada, CO
Atlanta, GA***
Beaverton, OR**
Boston, MA
Chicago, IL*
Clark County, NV*
Cleveland, OH*
Columbia, MO
Commonwealth of Massachusetts**
Denver, CO*
District of Columbia***
El Paso, TX**
Fort Worth, TX**
Gillette, WY**
Hall County, GA
Hillsboro, OR**
Houston, TX**
Huntington, NY
Kauai County, HI
Kitsap County, WA*
Knoxville, TN*
Los Angeles, CA**
Medford, MA**

Milwaukee, WI**
Pittsburgh, PA**
Placer County, CA
Roanoke, VA*
Rochester, NY*
Sacramento, CA
Santa Fe, NM
Seattle, WA*
Spokane County, WA**
State of Delaware**
State of Iowa*
State of Maryland*
State of Minnesota*
State of North Carolina***
State of Rhode Island*
Thurston County, WA
Toledo, OH
West Palm Beach, FL*
Will County, IL
Worcester, MA

Financial Allies

Abundant Power*
AFL-CIO*
Blue Hill Partners LLC*
Citi*
Clean Fund LLC*
Energi Inc.*
GE Capital
Green Campus Partners*
Greenwood Energy*
Metrus Energy**
Renewable Funding*
Samas Capital
SCLenergy
Ygrene Energy Fund

Utility Allies

Los Angeles Department of Water and Power*
Pacific Gas and Electric Company*
Southern California Edison*

New Commercial Partners

CommonWealth Partners*
Hilton Worldwide
MGM Resorts International
Walmart
Whole Foods Market**

New Education Partners

Anne Arundel County Public Schools, MD
Penn State University
Towson University
University of Virginia**

New Industrial Partners

Eastman Chemical
General Mills
General Motors*
HARBEC*
United Technologies Corporation
Volvo*

New Multifamily Partners

Balfour Beatty Communities
Capitol Hill Housing
Cuyahoga Metropolitan Housing Authority

Jonathan Rose Companies
Minneapolis Public Housing Authority
New Bedford Housing Authority
Rockford Housing Authority
VLV Development
Wishrock Investment Group

New State and Local Partners

Chula Vista, CA
Margate, FL*
San Diego, CA

New Financial Allies

California Housing Partnership
Clean Energy Finance & Investment Authority
Enterprise Community Investment, Inc.
Hannon Armstrong
LISC
Low Income Investment Fund
TBL Fund

Key

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- ▶ implementation model completed