

Commercial Building Partnerships: Mainstreaming Energy-Efficient Strategies

The Commercial Building Partnerships (CBP) program is accelerating the transformation of the country's energy landscape by demonstrating innovative low-energy technologies and strategies in commercial buildings.

CBP, a public/private, cost-shared program sponsored by the U.S. Department of Energy (DOE), pairs selected commercial building owners and operators with representatives of DOE, its national laboratories, and private-sector technical experts. These teams explore energy-saving measures—including some that might otherwise be considered too expensive or technologically challenging—and apply them to specific commercial building projects.

CBP sets the bar high: New construction is designed to consume at least 50 percent

CBP by the Numbers

- 42 Partners
- 54 projects
- 27 new construction projects
- 27 retrofit projects
- CBP projects: almost 8.3 million square feet
- CBP Partner building portfolios: almost 4 billion square feet

To see a list of Partners and projects, [click here](#).



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Through the Commercial Building Partnerships program, building owners and operators, teamed with U.S. Department of Energy representatives, national laboratories staff, and private-sector technical experts, are exploring and implementing energy-saving ideas—including many that might have been too expensive or technologically challenging for Partners to tackle on their own.

less energy than ANSI/ASHRAE/IES Standard 90.1-2004, and retrofits are designed to consume at least 30 percent less energy than either Standard 90.1-2004 or current consumption.

Increasing Speed and Scale of Change

Opportunities abound to dramatically expand the program's reach: CBP projects represent 8,295,636 square feet¹ of commercial real estate, including such diverse building types as retail stores, groceries, university campus structures, housing developments, offices, and warehouse/storage facilities. The Commercial Building Partners have committed to reproducing low-energy technologies and strategies from their CBP projects throughout their building portfolios, representing 3,983,890,813 square feet of commercial real estate.

Because many of the Partners are dominant in their industries, they provide leadership in advancing energy-efficiency efforts throughout the commercial building sector. Furthermore, CBP's private-sector technical experts are incorporating project innovations throughout the broader marketplace, while other private-sector experts are taking advantage of published business and technical information about the projects—thus remarkably increasing the speed at which the new technologies and strategies are becoming standards.

1. All project and portfolio square footage data have been provided by CBP Partners.

Energy Savings Today and Tomorrow

The program is achieving its goals by focusing on the following approaches:

- Delivering cost-effective energy savings using today's readily available building technologies and strategies.
- Targeting more aggressive energy savings through cutting-edge technologies and strategies.

Projects seeking more aggressive energy savings can incorporate newer technologies such as combined heat and power systems, solid-state lighting, and ground source heat pumps. Achievements in these areas spur development of next-generation commercial buildings by demonstrating what is possible and by creating market demand for pioneering technologies.

How the Program Works

CBP projects progress through the following stages at varying rates:

- Pre-design
- Design
- Construction and Commissioning
- Performance Verification
- Reporting

Teams representing four of DOE's national laboratories² provide technical expertise throughout the life of each project. Working with Partners and their design teams, laboratory staff identify energy-efficient technologies across building systems—including building envelope, HVAC, lighting, and miscellaneous electrical loads—



Partner companies, such as Best Buy Co., Inc., The Westfield Group, and Target Corp., typically hold large building portfolios. This offers potential for companies to replicate innovative CBP project technologies and strategies throughout their building portfolios.

and use advanced energy modeling to achieve peak whole-building performance. The laboratories also assist in collecting building data, monitoring and verification, and data analysis.

Projects provide useful data and “lessons learned” for incorporation into CBP Toolkits. These Toolkits offer a wide range of resources, including best-practice handbooks, decision tools, business and technical case studies, and webinars. Aimed at architects, engineers, and building managers, the Toolkits help drive market replication of project technologies and strategies. They support six building types: grocery stores, hotels, department stores, big-box stores, offices, and structures on university campuses.

Commercial Building Energy Alliances

Partners extend their influence in the commercial building sector by participating in DOE's Commercial Building Energy Alliances (CBEAs). These industry-led associations of building owners and operators in key commercial sectors encourage peer-to-peer exchange of best practices. Working with DOE, alliance members provide leadership in advancing low-energy goals across their building portfolios and across the nation.

For more information about CBP, visit www.commercialbuildings.energy.gov/building_partnerships.html.

For more information about CBEAs, visit commercialbuildings.energy.gov.

A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

2. National Renewable Energy Laboratory (NREL), Pacific Northwest National Laboratory (PNNL), Lawrence Berkeley National Laboratory (LBNL), and Argonne National Laboratory (ANL).