



Market Engagement overview

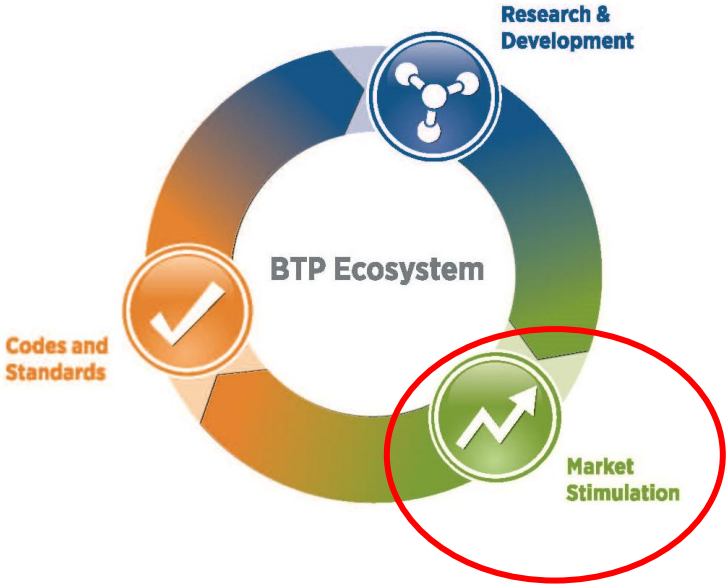
April 2015

Building Technologies Office Program Peer
Review

Commercial Buildings Integration Program

CBI Mission: Accelerate voluntary uptake of significant energy performance improvements in existing and new commercial buildings.

CBI Vision: A commercial buildings market where energy performance is a key consideration during construction, operation, renovation, and transactions, and net zero energy ready commercial buildings are common and cost-effective.



Goals

BTO Goals:

BTO supports the development and deployment of technologies and systems to reduce building energy use by 50 percent.



CBI Program Goals:

	2014	2020	2030
Demonstrate cost effective energy savings over ASHRAE 90.1-2004 code in new buildings	50% energy savings	Zero Energy Ready Building	Zero Energy Ready Building
Demonstrate energy savings at convincing scale for new buildings	X	50% energy savings	Zero Energy Ready Building
Demonstrate cost effective energy savings for existing building retrofits	20% energy savings from prior baseline	20% energy savings from prior baseline	Zero Energy Retrofits
Demonstrate cost effective energy savings at convincing scale for existing building retrofits	X	20% energy savings	50% energy savings

- Convincing scale: impacting square footage of new and existing commercial building types that count for 80% of commercial energy consumption in all climate zones as measured by CBECS 2003

Key Barriers

Lack of reliable information on costs and likely impacts of efficiency measures.

Efficiency investments perceived as too expensive or complicated / risky to access internal or external capital.

Current real estate, design, construction and building services markets do not appropriately value energy efficiency.

Inadequate training or experience of building services workforce

Strategies

Provide reliable information about high impact technologies (HITs) and systems through real world demonstrations and deployment activities.

Develop & deploy low-cost, standardized, interoperable tools that help stakeholders understand the value of energy efficiency.

Provide design and decision support resources for new and existing commercial buildings.

Prepare the workforce to design, build and operate buildings more efficiently.

Engage market leaders through partnership programs.

Support development of new, integrated program models.

CBI Program Methodology

- 1. Developing and demonstrating **technologies, tools and solutions** to remove barriers to investment and increase understanding of efficiency measures
- 2. Demonstrating and deploying actionable products through **market partnerships** to drive technologies into the commercial buildings marketplace



Data, Metrics and Tools
Technology Demonstration
New Construction/Major Renovation /Codes
Workforce: Training and Certification
Energy Management

Better Buildings Challenge
Better Buildings Alliance
Industry Partners
Intergovernmental

CBI Program

Develop

Market Infrastructure

Develops and deploys solutions and tools that remove market barriers to greater investment in energy efficiency.

- Addresses need for common approaches and metrics to ensure functioning markets for energy efficiency
- Develops model practices, case studies, tools, and guidance
- Works via market outreach team to deploy resources to the market

Organized by major market barriers.

High Impact Technologies & Systems

Supports the acceleration of energy efficient technologies and technical solutions.

- Coordinates with ET, Codes and Standards programs to maximize energy savings
- Uses Better Buildings Alliance work group structure to develop technology-related resources
- Works via market outreach team to conduct demos of technologies
- Works via market outreach team to deploy technical solutions to the market

Organized by technology area.

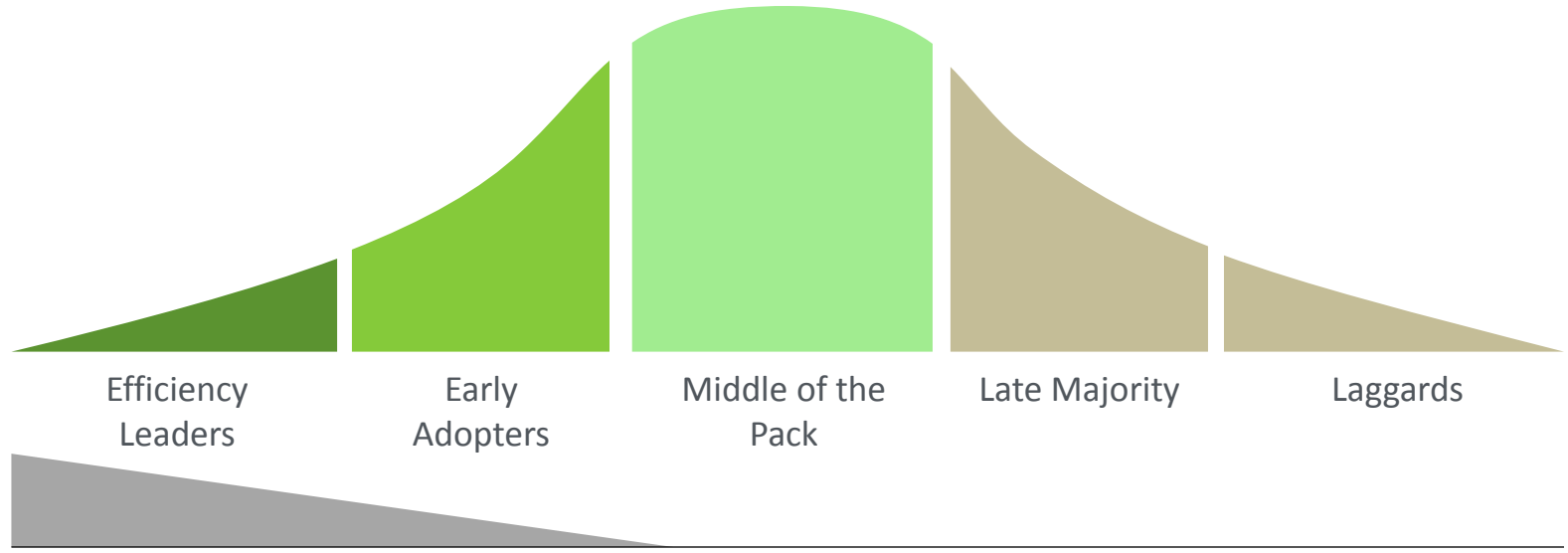
Deploy

Partnership Programs

Deploys resources developed by other teams, recruits market partners to participate in activities, tracks & communicates market impact

Working with: Owners, Managers, Tenants, AECo professionals, Manufacturers, Small business, Utilities, REEOs, Intergovernmental, Other EERE offices, NGOs

Who's our target audience?



Segment	Description	Deployment Strategy
Leaders / Adopters	Organizations willing to set and communicate efficiency goals, adopt new technologies, and test solutions early for competitive advantage. Tend to influence their peers and the market.	Directly work BBC and BBA members to prime the market, document and test market-changing solutions. Expand BBA to new high-priority market segments as time and resources allow.
Middle-of-the-pack	Organizations that are not willing to be early adopters but follow the lead of their peers or competitors once a practice or solution is proven	Provide access to tools and solutions for them that turn them from opposed to neutral by enabling them to comply/adopt at lowest cost.
Late Majority / Laggards	Don't change habits, practices or technologies until they have to.	Served by other programs (utility, etc.) Moved by regulations (Codes & Standards)

CBI Focus Areas: Partnerships, Market Outreach and Engagement



- Better Buildings Challenge
 - 20% energy efficiency improvement over 10 years; Partners commit to public goal with annual reporting
 - CBI manages commercial real estate, retail, restaurant, healthcare, lodging, and higher education partners

- Better Buildings Alliance
 - Nearly 200 members representing 10 billion square feet of commercial space working with DOE and its national labs to save energy
 - Participants take part in energy saving technology campaigns, demonstrations, and projects

- State and Local Energy Efficiency Action (SEEACTION)
 - CBI oversees existing buildings working group
 - Helping identify best practices and overcome barriers to energy efficiency

- Partnerships with Grantees, Regional and National Energy Efficiency Program Sponsors



Federal Assistance: Grants and Cooperative Agreements



A screenshot of the Grants.gov website interface. The top section features a blue header with the text "About Grants.gov" and a paragraph describing the site as a place to find and apply for federal grants. Below this is a red button with the text "Learn more about Grants.gov »". The background of the header shows a photograph of the U.S. Capitol building. Below the header is a section titled "Find Open Grant Opportunities" with three blue buttons: "NEWEST OPPORTUNITIES", "BROWSE CATEGORIES", and "BROWSE AGENCIES".

About Grants.gov

Grants.gov is your place to FIND and APPLY for federal grants. The United States Department of Health and Human Services is proud to be the managing partner for Grants.gov--an initiative that is having an unparalleled impact on the grant community.

[Learn more about Grants.gov »](#)

Find Open Grant Opportunities

[NEWEST OPPORTUNITIES](#)

[BROWSE CATEGORIES](#)

[BROWSE AGENCIES](#)

- The Building Technologies Office issues funding opportunities to advance energy efficiency solutions and technologies for commercial buildings.
- These are usually competitive solicitations are typically open to industry, small businesses, academia, the national labs, and other entities.
- Recipients are independent and are responsible for managing their own projects and ensuring their success. DOE monitors projects and provides financial assistance, oversight, and guidance.
- Penn State's Consortium for Building Energy Innovation is the largest funding recipient overseen by the Building Technologies Office, and many of their projects will be reviewed this week

Penn State Consortium for Building Energy Innovation projects:

Tuesday

11:30-12:00 CBEI: Career Pathways for the Energy Retrofit Workforce (McLean)

12:00-12:30 CBEI: Building Retuning Training (McLean)

1:30-2:00 CBEI: Broker Training - Placing Value on Energy Retrofits (McLean)

2:30-3:00 CBEI: Improving Code Compliance with Change of Occupancy Retrofits (Presidential)

4:15-4:45 CBEI: Packaged Masonry Wall Retrofit Solution for Small and Medium Sized Commercial Buildings (Presidential)

Wednesday

9:00-9:30 CBEI: Lessons Learned from Integrated Retrofits in Small and Medium Sized Commercial Buildings (Potomac)

9:30-10:00 CBEI: Demonstrating On-Bill Financing to Encourage Deep Retrofits (Potomac)

10:00-10:30 CBEI: Using DOE Tools (Potomac)

11:15-11:45 CBEI: Improving Benchmarking Data Quality (Potomac)

11:45-12:15 CBEI: Benchmarking Analytics Tools (Potomac)

12:00-12:30 CBEI: HVAC Packages for Small and Medium Sized Commercial Buildings (McLean)

1:30-2:00 CBEI: Stakeholder Engagement Support for the Better Buildings Energy Data Accelerator (Potomac)

2:00-2:30 CBEI: Aligning Owners and Service Providers (Potomac)

2:45-3:15 CBEI: Enhancing OpenStudio for Airflow and Daylight Modeling (McLean)

4:00-4:30 CBEI: Collaborative Approaches for Integrated Energy Retrofits (McLean)