



Commercial Real Estate Breakout Session

Monday, May 9th from 2:00 – 3:15 PM

Room: Columbia 2

Level: Lobby

Agenda

- 2:00** Welcome & Introductions
- 2:05** Program Updates, New Resources & Activities
- 2:15** Partner Highlight – Forest City
- 2:25** Group Discussion: Sector Trends and the Next Big Thing
- 3:05** Adjourn/Networking

Welcome & Introductions



Cindy Zhu
DOE
CRE Lead



Jake Dowling
JDM
CRE
Account Manager



Deb Cloutier
JDM
CRE Subject
Matter Expert



Eric Duchon
Steering Committee
Chair

Steering Committee Members (2014-2016)

- Eric Duchon, Cushman & Wakefield - Chair
- Karen Penafiel, BOMA International
- Michael Groppi, CBRE
- Dave Pogue, CBRE
- Carlos Santamaria, Chair Emeritus
- John Scott, Chair Emeritus
- Kinga, Porst, GSA
- Will Teichman, Kimco Realty
- Jennifer McConkey, Principal Real Estate Investors
- Mason Sharpe, Sharpe Properties

2016-2018 Steering
Committee Nominations
can be submitted to
bba@ee.doe.gov
by **June 15th**

Program Updates

Better Buildings 2015 Snapshot

Better Buildings Challenge Snapshot, 2015

Partnership	
Number of Partners and Allies	310+
Square Feet Represented	4.2 billion
New Partners in the past year	60+
Solutions	
Partner Solutions Available for Replication	400+
Results	
Energy Saved (Btus)	161 trillion
Dollars Saved	\$1.3 billion
Avoided CO ₂ e emissions (tons)	10.1 million
Funding Committed/Placed	\$5.5 billion / \$5.4 billion
Water Savings (gallons)	2.1 billion

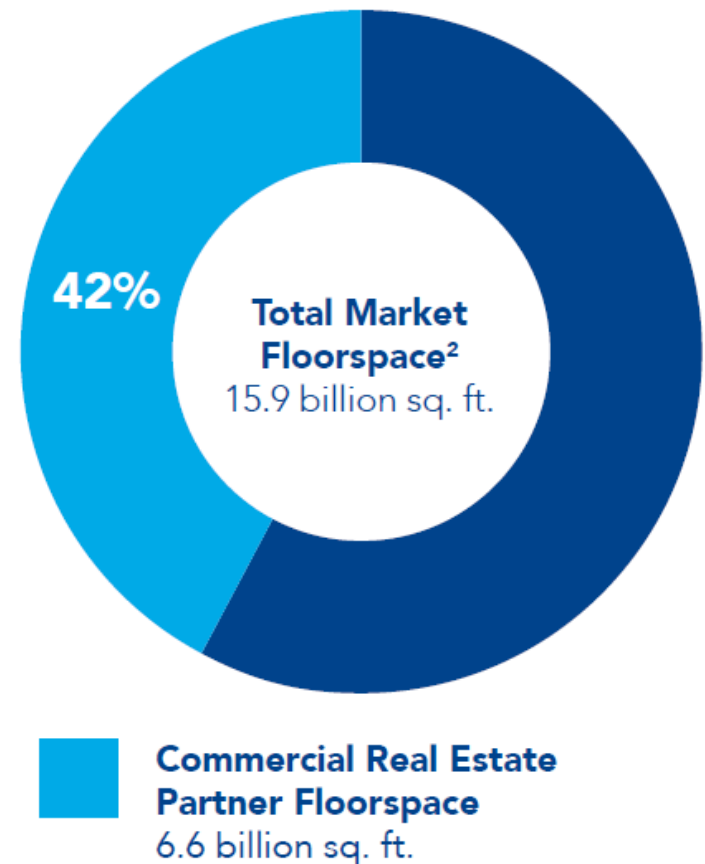
Better Buildings Alliance Snapshot, 2015

Membership	
Number of Member Organizations	202
Square Feet Represented	11+ billion
Percent of U.S. Commercial Buildings	13%
New Partners and Affiliates in 2015	19
New Resources Developed	
Business partners, technology and procurement specifications, user guides, rebate resources and case studies	40+

BBA Sector Snapshot

- 51 partners who own, lease, or manage 6.6 billion square feet of commercial space.

Commercial Real Estate Members as a Percent of Market Floorspace



New BBA Partners since May 2015



UNIVERSITY OF UTAH
HEALTH CARE



University of Nebraska
Medical Center™
BREAKTHROUGHS FOR LIFE.®



RAMAPO
COLLEGE
OF NEW JERSEY



MICHIGAN STATE
UNIVERSITY



NORTHWESTERN
UNIVERSITY



New BBC Commercial Partners since May 2015



Saunders Hotel Group



NORTHWESTERN UNIVERSITY



Berkeley UNIVERSITY OF CALIFORNIA



General Program Updates

- **Annual Progress Update Reports**
 - Better Buildings Alliance – [2016 Winter Progress Update](#)
 - Better Building Challenge – 2016 Progress Report
- **New Better Buildings Challenge Implementation Models**
 - [Using Technology to Meet Portfolio-Wide Energy Reduction Goals](#)
 - Forest City
 - [Recognizing Staff for Progress Towards Sustainability Goals](#)
 - Parkway Properties
 - ["Flip the Switch" Tenant Engagement Program](#)
 - Shorenstein
 - [Setting Mini-Goals to Reach Mega Goals](#)
 - TIAA
- [Better Buildings Challenge SWAP](#)

Technology Team Update

- New Resources Relevant to Sector:
 - [Solar Integration Case Studies](#)
 - [Business Case for Proactive Advanced RTU Replacement](#)
 - [A Primer on Organizational Use of EMIS](#)
 - [Decision Guides for Plug and Process Load Controls](#)
- Advanced Roof-top Unit (ARC) Campaign
 - Awards presented at PRSM national conference in April
- Interior Lighting Campaign (ILC)
 - Awards to be presented at BOMA national conference in June
- LEEP Campaign
 - Awards to be presented at Greenbuild conference in October

NEW! Smart Energy Analytics Campaign

The Smart Energy Analytics Campaign promotes the adoption of analytics software and ongoing monitoring.

Join the Campaign to receive

- Energy Management and Information Systems (EMIS) best practice resources and technical support
- Peer-to-peer learning network focusing on EMIS technology topic areas
- Recognition for exemplary performance

What does Campaign Participation look like?

- Participants pledge to install or use existing EMIS to analyze data and identify energy-saving improvements

www.smart-energy-analytics.org

Campaign is delivered in partnership with:



Market Solutions Update

- Apply for Green Lease Leaders by May 18th!
www.greenleaseleaders.com
 - Awards to be presented at BOMA national conference in June
- Financial Data Working Group
 - Objective: Catalyze further research on the relationship between sustainability, building performance, and financial returns
- Appraisal Working Group
 - Objective: Increase awareness, promote the exchange of information, and improve practices, Evaluate challenges and potential interventions in appraisal process, Develop resources to reduce barriers

New Webpage!



[Alliance Home](#) **Sectors** [Activities](#) [Partners](#) [Solutions](#) [Get Involved](#) [Newsroom](#) [About](#)

[Better Buildings Initiative](#) » [Better Buildings Alliance](#) » [Commercial Real Estate](#)

Sector: Commercial Real Estate



Commercial real estate properties represent nearly 16 billion square feet of floorspace. These properties consume more than 20% of all commercial building energy use and spend more than \$32 billion annually on energy. Through the Better Buildings Alliance's commercial real estate sector group, 51 partners who own, lease, or manage over 6.5 billion square feet of commercial space, equivalent to 42% of the commercial real estate market floorspace, are sharing best practices, and engaging with technical experts to advance their energy savings goals.

Summit Sessions of Interest

- Invest to Impress! Energy Efficiency for Investment Owners
 - Monday, May 9th – 3:45 to 5:00pm
- Tackling Energy Efficiency in Commercial Real Estate: Lessons from Leading Cities
 - Wednesday, May 11th – 11:15am to 12:30pm
- Transfer Tasks: Applying Successful Energy Strategies to Water Reduction Goals
 - Wednesday, May 11th – 2:00 to 3:15pm

Sessions of Interest (continued)

- **Show Me the Value: Appraising Green**
 - Tuesday, May 10th – 3:45 to 5:00pm
- **Proving the Profits: Industry Efforts to Link Energy Performance and Financial Performance Data**
 - Wednesday, May 11th – 9:45 to 11:00am
- **Underwriting Energy: Are Commercial Mortgages Ignoring Energy Related Risks and Benefits?**
 - Tuesday, May 10th – 9:45 to 11:00am
- **Train and Hire Qualified Energy Staff: Better Workforce Guidelines**
 - Wednesday, May 11th – 2:00 to 3:15pm

TONIGHT!: Sector Networking Event

Monday, May 9th at 5:30pm
Jack Rose Dining Saloon
2007 18th St NW
Washington, DC 20009

Sector Priorities Discussion

Sector Priorities

- **Priority 1: Incorporating Energy Efficiency Into Appraisal and Valuation**
 - Progress: Appraisal Working Group, March Webinar, Appraiser Training
- **Priority 2: Identifying and Evaluating Skilled Engineers**
 - Progress: Solution at a Glance – Sample Interview Questions
- **Priority 3: Understanding and Communication the Connection between Sustainability and Financial Value**
 - Progress: Finance Working Group, Financial Data Research

Partner Highlight



BUILT ON PURPOSE

BETTER BUILDINGS CHALLENGE PARTNER
RECAP

Joyce Mihalik
Vice President – Integrated Design

FORESTCITY

Who we are

Forest City Realty Trust, Inc. - Owner, manager and developer of real estate across the U.S.

Our vision: To be the real estate leader and partner-of-choice in creating distinctive places to live, work and shop.

Environmental performance

Buildings play a critical role in human contributions to climate change, and we recognize this as both an industry risk and an enterprise opportunity. Our goal is to build and manage our properties in a way that minimizes our contribution to this global climate change and provide better energy efficiency for our tenants.

CORE PRODUCTS

- Retail
- Residential
- Office

CORE MARKETS

- New York
- Boston
- Washington, D.C.
- Denver
- San Francisco



Accountability

Unique
Buildings
Need
Custom
Solutions

San Francisco Centre



The Yards, Washington, D.C.



New York Times
Building



Stapleton, Denver



Mercantile Place
on Main, Dallas



New York by Gehry
at 8 Spruce Street

Capability

Energy Plan Implementation Model



Energy Management Outreach

- Core Corporate Teams
- Extended Teams
 - Property managers
 - Procurement
- Channel Partners



THE BREWER-GARRETT COMPANY
The Facility Solutions Company.

Strategic Levers

- Changed to Resource Advisor, and improved building tracking
- Energy Assessment & Inventory
- Deep Dive Retrofits
- Energy Training
- Energy Financing



Support by Strategic Partners instrumental in our success

Accountability: Program results

EUI Improvement since 2010 baselines

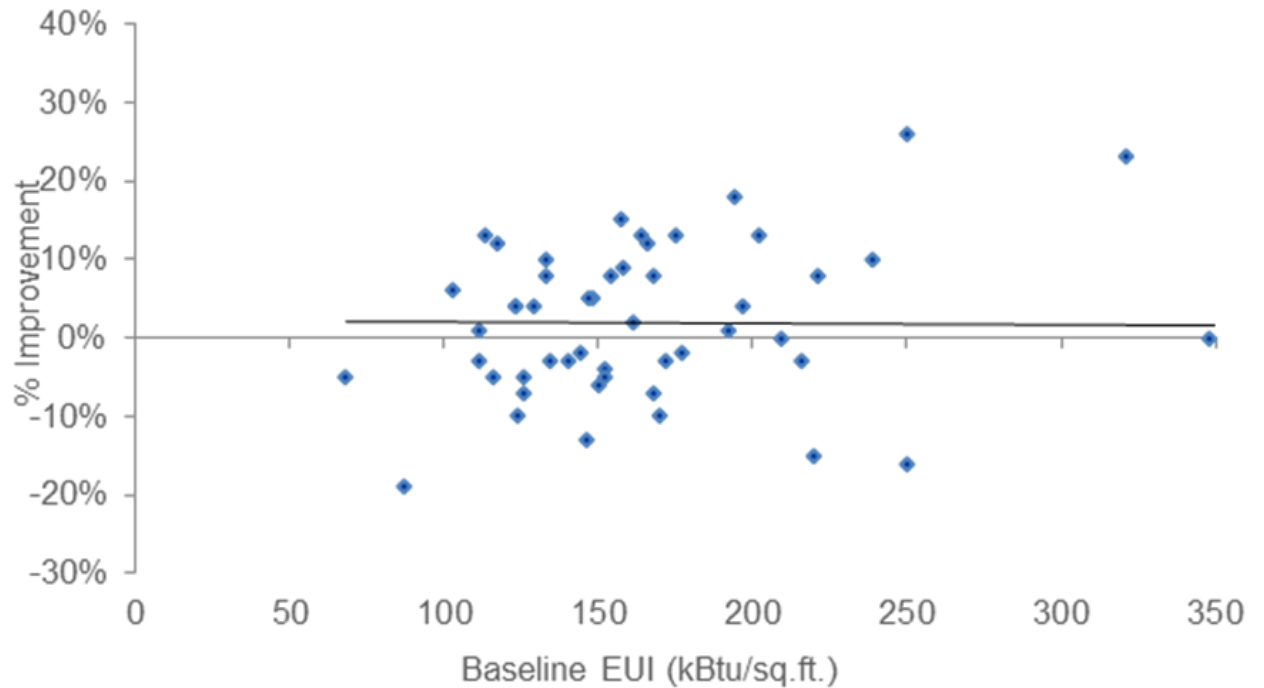
5% improvement in whole buildings registered in the Better Buildings

Challenge

9% improvement in comparative portfolio, including buildings with

combination of landlord and tenant controlled spaces

Percentage Improvement Over Baseline EUI



Adaptability

How are we using energy efficiency as a strategic driver to create competitive advantage?

KEY PROGRAMS

INTERIOR LIGHTING CAMPAIGN



GREEN LEASE LEADERS

Creating sustainable landlord-tenant relationships.



50

Buildings certified or targeting LEED certification in portfolio



Over 20 new buildings constructed in a five year period.

Adaptability

How can we use technology to advance our emission reductions goals?

TECHNOLOGY SHOWCASE MODEL

Technologies piloted and implemented on a broad scale:

Variable Supply Technologies (VRF, VFDs)

Smart Irrigation Drip Controls

Building Diagnostics Platforms

LED Luminaires

Electrical Vehicle Charging Stations

Technologies currently in pilot stage:

Smart Glass

DC Powered Lighting and Electrical Panels

Battery Walls

In-unit Smart Thermostats

Aqua Miser® Fill Valve & Flapper

Technologies to be analyzed or tested:

Graywater Reuse

High Velocity HVAC Flexible Duct Systems

Rooftop Unit VFD Retrofit (Multi Stage Air Volume)

Central Plant Optimization

Combined Heat and Power

Heat Pump Water Heaters

Natural Gas Heat Pumps and Air Conditioners

Small Tonnage Ice Storage Systems

Smart Lighting

Thank you / Questions



Group Discussion: Sector Trends and The Next Big Thing

Thank You

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