



**Better  
Buildings®**  
U.S. DEPARTMENT OF ENERGY

# Commercial Real Estate and Hospitality Sector Meet-Up

May 27<sup>th</sup>, 2014

# Agenda

- 10:00 Welcome & Introduction
- 10:05 Program Updates
- 10:10 Integrating Solar PV into your Portfolio
  - Jay Paidipati, Navigant Consulting
  - Drew Torbin, Black Bear Energy
- 10:35 Sector Break Outs
- 11:30 Adjourn

# About Better Buildings

- Better Buildings:** A broad, multi-strategy initiative aiming to improve the energy use of our nation's commercial, industrial, residential, and public buildings by 20% over 10 years
  - Better Buildings Challenge:** A leadership initiative calling on CEOs, university presidents, building owners, state and local government leaders, and residential housing developers to publically pledge to reduce entire portfolio's energy use
  - Better Buildings Alliance:** Members address energy efficiency needs in their buildings by setting savings goals, developing innovative resources, and adopting cost-effective technologies and market practices.

**Better Buildings Challenge Snapshot, 2014**

Membership	
Number of Partners and Allies	250+
Square Feet Represented	3.5 billion
New Members in 2014	60
Solutions	
Partner Solutions Available for Replication	160+
Results	
Energy Saved (Btus)	94 trillion
Dollars Saved	\$840 million
Avoided CO <sub>2</sub> e emissions (tons)	5.8 million
Funding Committed/Placed	\$5.5 billion / \$3 billion

**Better Buildings Alliance Snapshot, 2014**

Membership	
Number of Member Organizations	185
Square Feet Represented	10 billion
Percent of U.S. Commercial Buildings	11%
New Members in 2014	14
Activities	
Energy Savings Activities Available to Members	50+
Results	
Increase in Member Activity in 2014	More than 20%
Average Annual Energy Savings Reported	More than 2%

# Water Savings Expansion

## Last year, DOE launched a Water Savings Pilot with 23 BBC Partners

- Partners reported water savings between 10% and 20%, against their baseline years
- In 2014 alone, partners reported saving about 440 million gallons, or the equivalent of about 570 Olympic-size swimming pools.
- Partners are sharing solutions!
  - Best practice guides for water efficiency
  - Strengthening the business case for water saving projects



# Water Savings Expansion

- Based on the success working with this group, DOE is **expanding** its water-saving efforts
- Organizations partnering in the Water Savings Expansion will set water efficiency goals, report progress and share solutions with the market
- Participation is open to all partners with a complete energy data display and one energy-focused showcase project or implementation model
- DOE will work with other federal agencies, including EPA and HUD, as well as leading NGOs, to deliver greater water-related expertise to partners
- Talk to your sector lead or account manager about this opportunity today!

# New Resources & Activities

- **Technology Solutions Updates**
  - [Interior Lighting Campaign](#)
  - [Advanced Power Strip Specification](#)
  - [Solar Decision Guide](#)
- **Market Solutions Updates**
  - [2015 Green Lease Leaders announced today](#)
- **New Better Buildings Challenge Implementation Models**
  - IHG – [Green Engage](#)
  - MGM – MY Green Advantage
  - Tower Companies – [Leveraging Green Leases to Reduce Energy and Water Use](#)
- **Annual Progress Update Reports**
  - [Better Buildings Alliance](#)
  - Better Buildings Challenge
- Check [the Summit webpage](#) in June for all session presentations!

# Interior Lighting Campaign (ILC)

## High Efficiency Troffer Lighting with Controls

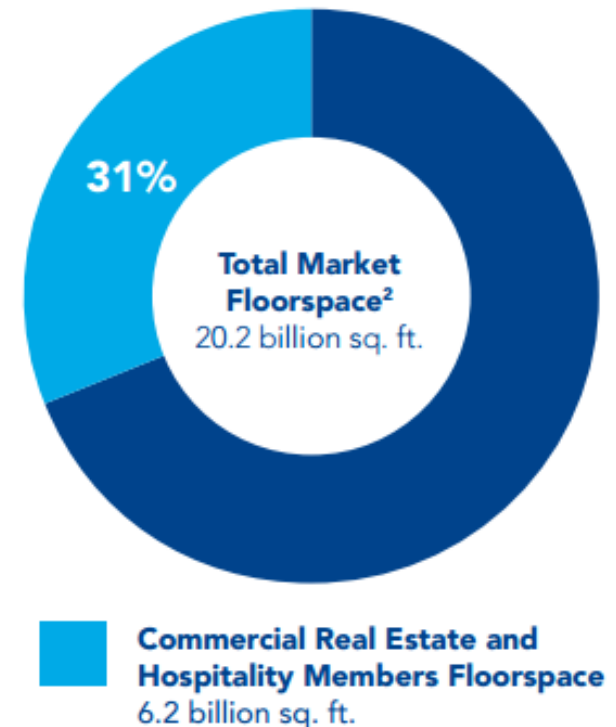
- Official launch - 2015 Better Buildings Summit
- Recognition and awards initiative similar to LEEP Campaign
- Goal to replace 100,000 standard troffers with high efficiency troffers by May 2016
  - Represents about 6.7 million kWh savings
- Resources to include a specification for 2x2, 2x4, and 1x4 troffers, utility incentives database, product lists, technical reports, case studies, free technical assistance.
- Join early!
  - Better Buildings members may join before the launch, and be recognized at the BB Summit as early adopters.
  - PNNL can help you identify appropriate sites, and the best product options to meet your unique needs.
  - Contact Linda Sandahl at [linda.sandahl@pnnl.gov](mailto:linda.sandahl@pnnl.gov).



# The Commercial Real Estate and Hospitality Sector

- **60 members 6.2 billion sq. ft.**
- **31% of the sector's 20.2 billion square feet in the U.S.**
- **Top 3 Technology Teams:**
  - Lighting & Electrical
  - EMIS
  - Space Conditioning
- **Key Links**
  - [Sector Webpage](#)
  - [CRE Sector Opportunities](#)
  - [Hospitality Sector Opportunities](#)

Commercial Real Estate and Hospitality Members as a Percent of Market Floorspace





# New Members in 2014

## CRE

- MC Realty Group, LLC
- Parkway Properties\*
- Retail Properties of America, Inc.
- The JBG Companies\*

## Hospitality

- Kelco Management & Development
- Las Vegas Sands\*
- Saunders Hotel Group
- The Kessler Collection

\* Denotes BBC partner

# Steering Committee Members

- Chris Magee, MGM Resorts International, Co-chair
- Marla Thalheimer, Liberty Property Trust, Co-chair
- Pat Maher, AH&LA
- Bert Etheredge, ASHRAE
- Karen Penafiel, BOMA International
- Michael Groppi, CBRE
- Dave Pogue, CBRE
- Carlos Santamaria, Chair Emeritus
- John Scott, Chair Emeritus
- Eric Duchon, Cushman & Wakefield
- Ari Frankel, Deutsche Asset and Wealth Management
- Kinga, Porst, GSA
- Will Teichman, Kimco Realty
- Malcolm Bryant, The Malcolm Bryant Corp.
- Jennifer McConkey, Principal Real Estate Investors
- Mason Sharpe, Sharpe Properties
- Faith Taylor, Wyndham Worldwide

# Summit Sessions of Interest

- **Accelerating Energy Efficiency through the Commercial Lease**
  - Today, 1:30 to 3:00pm ET – Virginia C
- **Capturing the Value of Efficiency: Incorporating Energy Performance Into Commercial Real Estate Investment Practices**
  - Thursday, 10:00 to 11:30am – Roosevelt 3
- **High Performance Troffer Lighting Solutions**
  - Thursday, 1:30 to 3:00pm – Virginia C
- **Engaging Employees to Drive Efficiency Behavior**
  - Thursday, 3:30 to 5:00pm – Roosevelt 5

## Tours Today!\*

**815  
Connecticut  
Ave NW**

**Hotel Monaco**

**\*For those that have registered, meet in the  
Lobby at 3:15**



# Promoting Solar PV on Leased Buildings

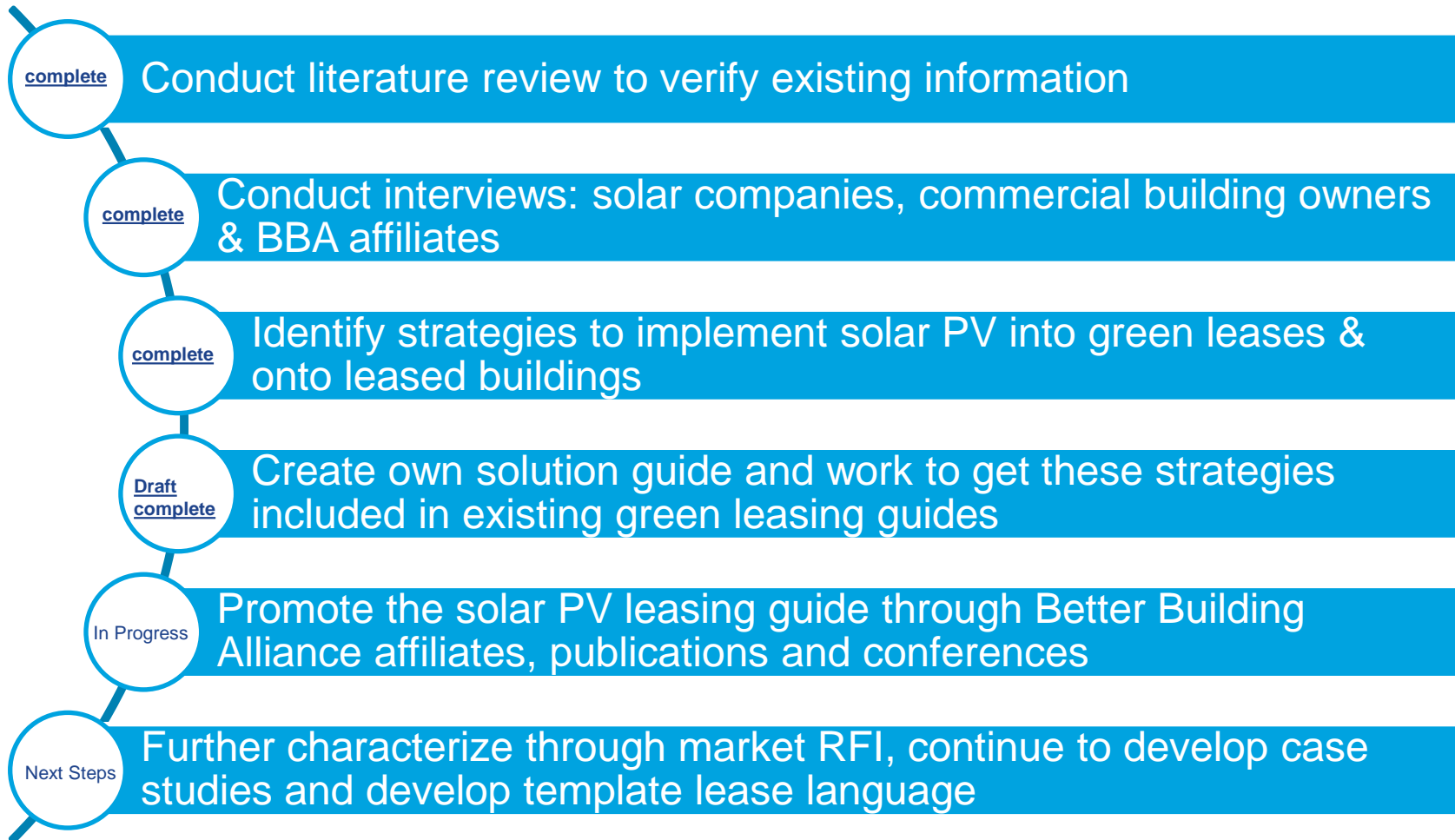
## CREH Meet Up

Jay Paidipati

May 27, 2015

- *Promoting Solar on Leased Buildings Guide*
  - Resource to identify and address the benefits, barriers and solutions to installing solar PV on leased buildings
- Complementary resource to *On-Site Commercial Solar PV Decision Guide* published in Sept. 2014
- BBA developed Green Lease Leaders program
  - Goal: “move the field of green leasing forward by simultaneously setting standards for what constitutes a green lease and recognizing leaders in the green leasing field.”
  - Existing green leasing resources provide minimal guidance on implementing solar PV on leased buildings

# Project Methodology



# Benefits of Installing Solar PV on Leased Buildings

- **Landlords**
  - Reduces operating costs and exposure to volatile energy costs
  - Enhances building marketability
  - Reduces tenant occupancy costs facilitating ability to charge higher rent
  - Improves tenant retention due to reduced operating costs
- **Tenants**
  - Reduces electricity costs
  - Stabilizes electricity costs
  - Supports corporate sustainability goals
  - Demonstrates environmental responsibility to employees and community

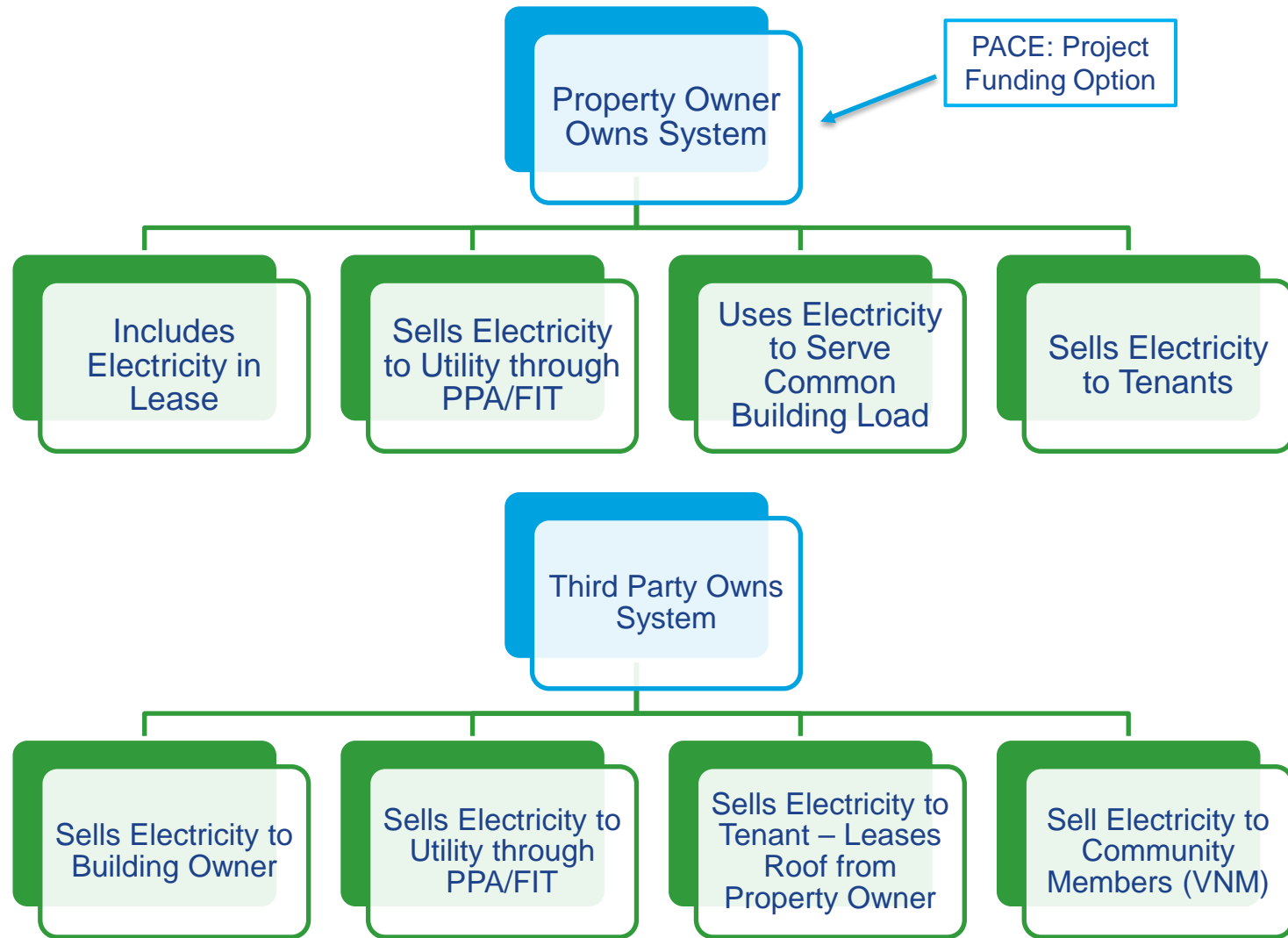




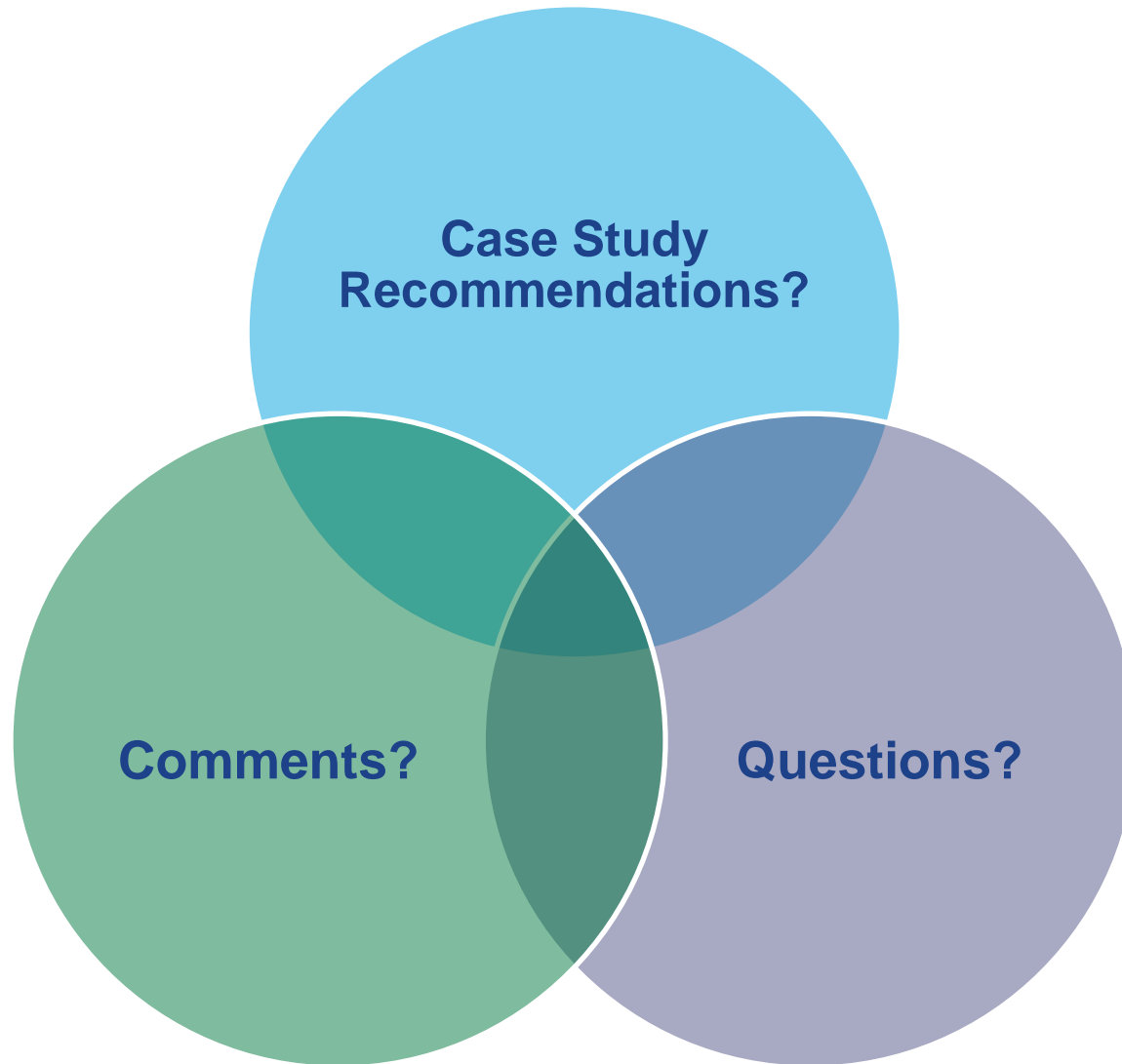
# Barriers to Installing Solar PV on Leased Buildings

- **Split incentive**
  - Energy costs often paid by tenants and solar PV system purchased and owned by building owner
- **Short payback requirement**
  - Building owners want 2-3 year payback
- **Timeframe discrepancy between building lease and solar PV system life**
  - Solar PV 20-25 year life which is often greater than building leases
- **Property owner creditworthiness**
  - Many properties owned by LLCs without publically rated investment quality
- **Property ownership entity**
  - Determines 30% Business Energy Investment Tax Credit eligibility

# Strategies to Install Solar PV on Leased Buildings



- RFI for Data Collection
  - Further characterize the problem and enhance our understanding of creative strategies.
  - RFI available at <https://eere-exchange.energy.gov/>
- Case Studies
  - Identify and write additional case studies that implement creative strategies to install solar on leased buildings
    - Case studies needed for following scenarios:
      1. Building owner/third party sells electricity through FIT
      2. Building owner sells electricity to tenant
      3. Building owner uses electricity to serve common load
      4. Building owner who funds solar project through PACE
- Template Lease Language
  - Develop or partner with another organization to develop template lease language



# Project Partners

- **Navigant Consulting**
  - Jay Paidipati, Director (project lead), [jpaidipati@navigant.com](mailto:jpaidipati@navigant.com), 303-728-2489
  - Andrea Romano, Sr. Consultant, [andrea.romano@navigant.com](mailto:andrea.romano@navigant.com), 415-399-2125
- **DOE BBA Technical Team Oversight**
  - Andrew Mitchell, [Andrew.mitchell@ee.doe.gov](mailto:Andrew.mitchell@ee.doe.gov), 202-287-1578
  - Amy Jiron, [amy.jiron@go.doe.gov](mailto:amy.jiron@go.doe.gov), 720-339-7475
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  - Olayinka Kolawole, [Olayinka.Kolawole@ee.doe.gov](mailto:Olayinka.Kolawole@ee.doe.gov), 202-287-5687
- **EPA Green Power Partnership**
  - James Critchfield, [Critchfield.James@epa.gov](mailto:Critchfield.James@epa.gov), 202-343-9442



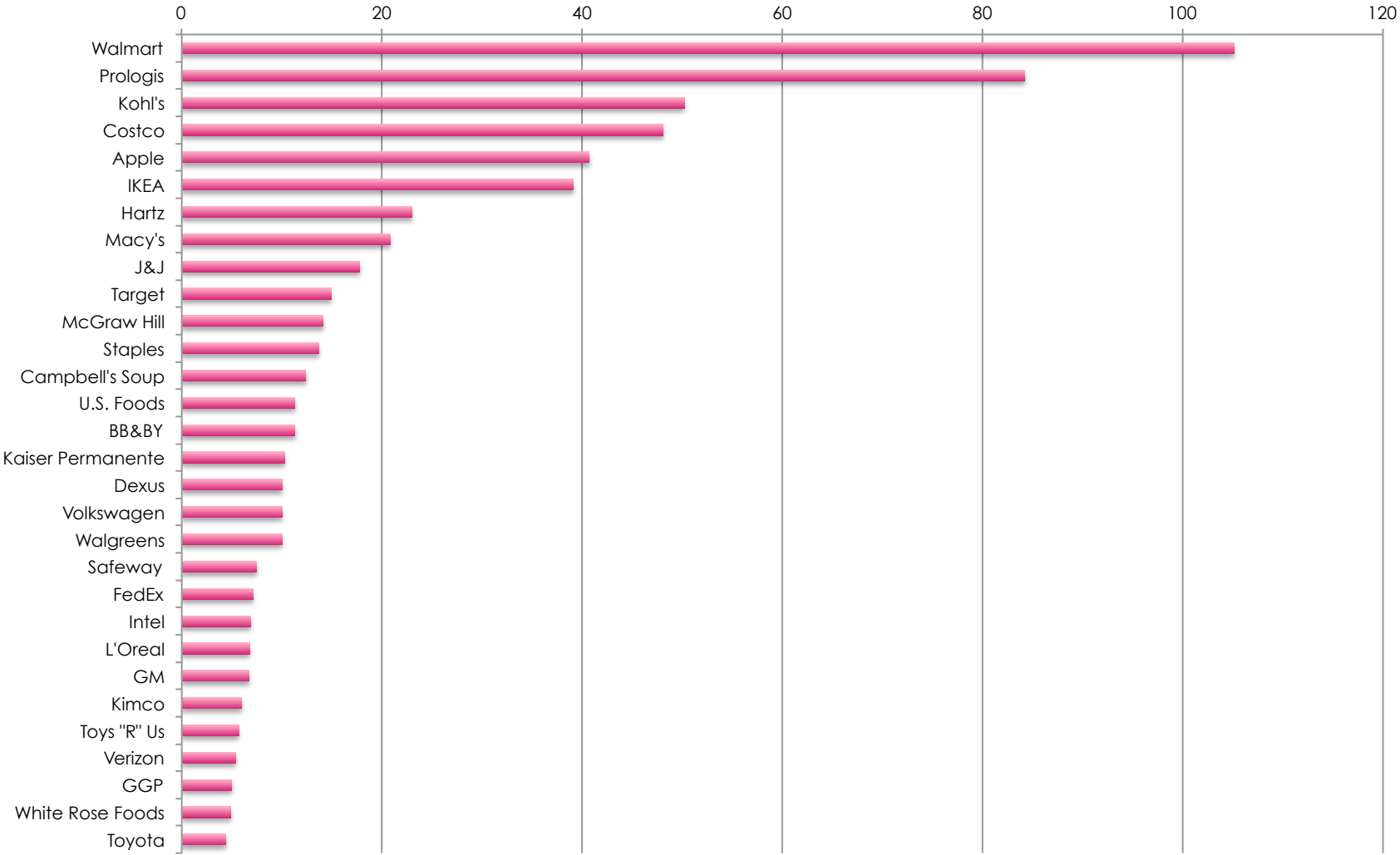


**BLACK BEAR**  
ENERGY

empowering your portfolio™

DOE Better Buildings Summit  
05.27.2015

# 2014 LEADERS IN U.S. ON-SITE PV CAPACITY



**BLACK BEAR**  
ENERGY

source: SEIA "Solar Means Business" 2014 and Black Bear research

# ABOUT US

Black Bear Energy is a renewable energy development company that serves the needs of the real estate community.

We work with tenants and property owners to scope projects based on their requirements and develop and competitively procure the vendors, products and services needed to complete each one. Black Bear is agnostic amongst all third party service providers. We work exclusively on behalf of the tenant and/or property owner to deliver the most compelling project at the best terms the market can offer.

Black Bear is led by Drew Torbin, a real estate executive with over eight years of renewable energy project development experience with support from Rocky Mountain Institute ([rmi.org](http://rmi.org)) and Carbon War Room ([carbonwarroom.com](http://carbonwarroom.com)).





# OUR APPROACH

- **We represent you**  
Our goal is to help property owners deploy projects on their terms at the most competitive pricing available. We are not tied to a manufacturer, financing facility, construction group, utility or any other supplier.
- **We align our interests with yours**  
We build our fees into the cost of a project and therefore are paid only if a project is successfully built and operated. Our team will produce a value accretive project and monitor it throughout its operational lifetime.
- **We are driven**  
We are passionate about delivering renewable and clean-tech projects which create value for your portfolio.



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# Break Out Sessions