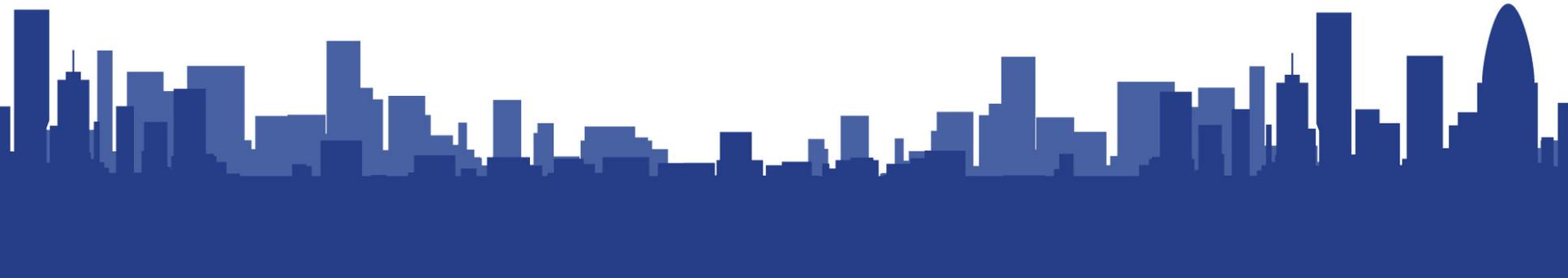




# 2013 Efficiency Forum - Sector Breakout I Retail, Grocery, and Food Service

May 29, 2013  
11:00am-12:30pm MT



## Agenda: Breakout Session I

- ❖ 11:00 Welcome and introductions
- ❖ 11:10 Better Buildings Challenge overview & speaker introductions
- ❖ 11:15 Better Buildings Challenge showcase project panel
- ❖ 11:50 Additional presentations:
  - Renewables discussion
  - Market Solutions team overview
- ❖ 12:15 Account management updates
- ❖ 12:20 Open forum & discussion
- ❖ 12:30 Adjourn



## Welcome Better Buildings Alliance Members!

**59**

Member organizations from the retail, grocery, and food service sectors

**6**

Better Buildings Challenge partners

**2.4+ billion**

Square feet of building space owned and managed

**Around the table: Better Buildings Alliance member introductions!**



## Goals:

- Launched in 2011 with goal to make buildings 20% more efficient by 2020
- Save more than \$40 billion annually
- Create jobs in the USA

## How:

- Leadership
- Results
- Transparency
- Best Practice Models
- Recognition
- Catalyzing Action



## Better Buildings Challenge to date:

110+ Partners (Commercial, Industrial,  
Public, Private)  
2 Billion Square Feet  
Nearly \$2 Billion Private Sector Financing  
300 Manufacturing Plants  
\$2 Billion Federal Commitment

# Better Buildings Challenge Partnership Agreement

## Partner Agrees to:

### Commit

- Assign Senior Executive
- Announce innovations/market solutions

### Take Action

- Showcase project within 9 months
- Organization wide plan, schedule and milestones within 9 months

### Report Results

- Share information and implementation models Share portfolio wide, facility level energy performance twice a year
- Quarterly updates on progress on showcases projects, other

## DOE Agrees to:

### Assist

- Technical assistance
- With the development of implementation models

### Connect

- Establish marketplace of energy efficiency stakeholders

### Recognize

- National and local recognition
- Showcase and highlight partners who develop and share innovative and cost effective marketplace blueprints



- ▶ What are energy efficiency implementation models?
  - Energy efficiency implementation models are **real-world, successful approaches to overcome barriers** to achieve portfolio-wide energy efficiency improvement.
  - Include specific information on the technologies, strategies, processes, and/or services that Partners utilized to achieve their energy savings target.
- ▶ What is a showcase project?
  - Showcase projects demonstrate that Better Buildings Challenge Partners are taking immediate, concrete actions resulting in significant and real savings. **Showcases are an opportunity to highlight specific projects that are innovative, aggressive, and notable** and share strategies, solutions, and results.
  - A showcase project is ideally **replicable, demonstrates to others how to take action**, and appropriately sized to reflect the Partners commitment to reduce energy use.



- ▶ Showcase project: [Kohl's Niles, OH Store](#)



**STAPLES**

that was easy.™

- ▶ Showcase project: [Staples Orlando Fulfillment Center #4895](#)



- ▶ Showcase project: [Enterprise Energy Management System](#)



- ▶ Showcase project: [Macy's at Metro Center](#)



- ▶ Showcase project: Coming soon! (See Challenge commitments [here](#))



*Walgreens*

- ▶ Showcase project: [Retail Pharmacy with Daylight Harvesting](#)



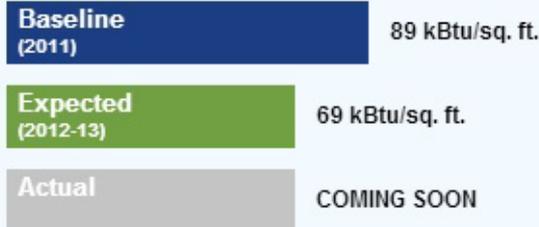
## STAPLES ORLANDO FULFILLMENT CENTER #4895 Showcase Project: Staples

**LOCATION**  
Orlando, FL

**PROJECT SIZE**  
550,000 Square Feet

**FINANCIAL OVERVIEW**  
Project Cost \$265,000

### Annual Energy Use (Source EUI)



**Expected Energy Savings: 22%**

### Annual Energy Cost



**Expected Savings: \$101,000**



## Comprehensive approach for identifying and implementing a host of energy efficiency measures

### ▶ SOLUTIONS:

- Implemented the “GE eco-Treasure Hunt” program and engaged the Staples energy reduction team, representatives from GE, and on-site facility team at the Orlando Fulfillment Center to identify efficiency opportunities
- Focused on energy efficiency in the areas of lighting, battery chargers, conveyors, HVAC and the energy management system
- Identified lighting upgrades in the warehouse ceiling, office area and exterior parking lot areas, and installed new high bay T5 lamps, new office lighting and LED lighting in dock areas at a cost of \$132,000
- Upgraded energy management system, variable frequency drives on roof top units and occupancy sensors on warehouse fans
- Installed new battery management system and vending machine sensors

### ▶ OTHER BENEFITS

- Energy management team supplied Orlando staff with associate communications to help engage the associates in energy efficiency efforts
- ENERGY STAR score is expected to rise from 41 to 61





## WALGREENS RETAIL PHARMACY Showcase Project: Walgreens Co.

**LOCATION**  
Goodyear, AZ

**PROJECT SIZE**  
15,000 Square Feet

### Annual Energy Use (Source EUI)



**Expected Energy Savings:** **45%**

### Annual Energy Cost



**Expected Savings:** **\$8,400**



## Retail pharmacy with daylight harvesting and new energy efficiency measures

### ▶ SOLUTIONS:

- Building off lessons learned from other store improvement projects, multi-measure approach expected to save 125,000 kWh of energy and 45% of costs annually
- Worked with lighting manufacturer CREE to create a hybrid lighting system (fluorescent and LED) focused on replacement of fixtures with the highest annual maintenance cost, allowing Walgreens to design a system that maximized energy and maintenance savings while controlling the initial cost of the LED fixtures
- Utilized daylight harvesting with a skylight that uses a solar-powered motor to track the sun's position; estimated savings from daylighting is 38,000 kWh/year
- Included individual packaged variable air volume HVAC equipment and the infrastructure for a level 2 electric vehicle charging station

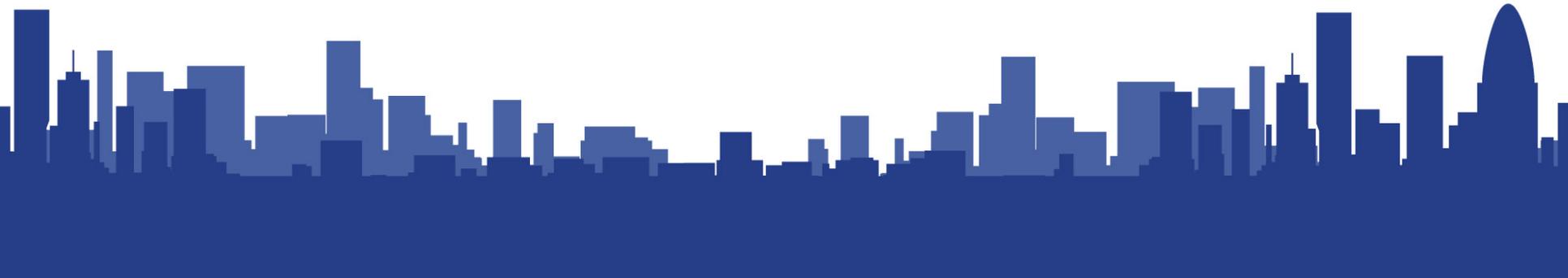
### ▶ OTHER BENEFITS

- Store will likely be eligible for the ENERGY STAR certification
- Preparing application for LEED certification





# Interest in Establishing a Renewable Energy Project Team



DOE is gauging interest in establishing a Renewables Project Team.

- ▶ Strategic use of renewables can help businesses reduce energy costs and environmental footprint
- ▶ A renewables project team can provide *unbiased advice and shared experience* to help BBA members navigate complex regulations, business models, and utility policies
- ▶ Who might be interested:
  - Anyone with large real estate holdings and/or high electricity costs
  - Businesses in areas with strong financial, utility, state, or other incentives for renewables
  - Organizations with sustainability goals
- ▶ Potential target technologies:
  - Solar PV, solar thermal systems and hybrid PV/Thermal
  - Biofuels and biogas
  - Small scale wind
  - Fuel cells?



## Examples of Potential Projects

### Solar Decision Guide and Support Services

- ▶ Businesses considering solar may encounter:
  - Widespread geographic differences regarding:
    - Utility Incentive structures (buy-down incentives, performance based incentives, Feed-in tariffs, etc.)
    - Utility policies (net metering, interconnection requirements)
    - Regulatory structures
    - Permitting requirements
  - Uncertainty about how to assess the different ownership structures (PPA, lease, own, etc.)
- ▶ The Solar Decision Guide and associated support services can help companies navigate this complex environment to determine if investing in solar makes financial sense and identify the regions that offer the most promising returns on solar investment.



### Biogas Guide and Support Services

- ▶ Converting food waste to biogas can help supermarkets and foodservice establishments reduce energy and waste disposal costs



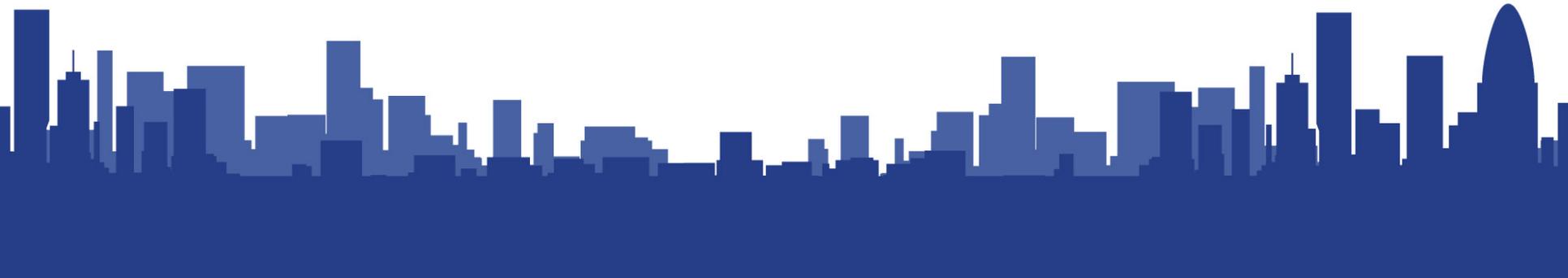
Before a renewables project team is established, we need to address several questions.

- ▶ Are members considering implementing renewables projects but struggling with certain issues associated with renewables? If so, what are the key concerns?
- ▶ Do members perceive significant value in establishing such a project team? Why?
- ▶ Which members would be interested in participating and/or leading such a team?
- ▶ What would be the priority issues to address?
  - Technologies: Solar PV, solar thermal systems and hybrid PV/Thermal, biofuels, other?
  - Regulatory issues
  - Utility incentives





# Market Solutions Overview



## Key Market Solutions Activity Areas

▶ Overcoming the Split Incentive

▶ Financing

▶ Training & Workforce Development

▶ Data Access and Benchmarking

▶ Appraisals and Valuation

Business Case  
Development

Coordination with  
Project Teams

Dissemination of  
Implementation Models



## How Can the REA Engage with the Market Solutions Team?

Retail building owners and managers face unique market barriers that the team could address through extensions of existing activities:

- ▶ Green Leasing – Identify common energy aligned leasing issues in retail space, develop case studies for sharing
- ▶ Data Access and Benchmarking – Collaborate with other Market Solutions team members to promote data accessibility at the tenant and building level
- ▶ Financing – Evaluate common strategies to mitigate financial barriers at the franchise level
- ▶ Building Re-Tuning – DOE hosts building re-tuning trainings through the Market Solutions Team to promote more advanced usage of BAS systems

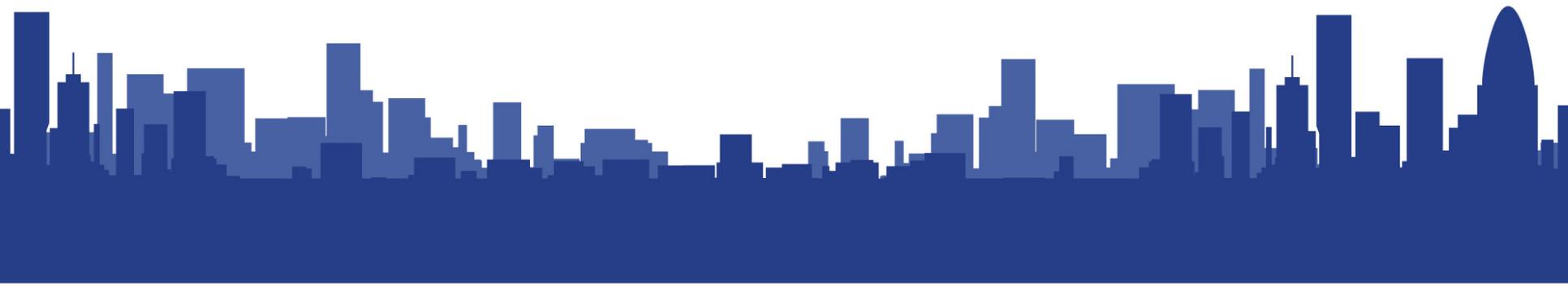


## Upcoming Market Solutions Breakout Sessions at Efficiency Forum

- ▶ Wednesday, 1:30 – 2:45 PM
  - Update on “Green” and Energy-Aligned Leasing
- ▶ Wednesday, 3:00 – 4:15 PM
  - Successful Strategies for Engaging Tenants to Improve Energy Efficiency
- ▶ Thursday, 10:15 – 11:45 AM
  - Overcoming Obstacles to Data Access: Who, What, Where and How?
- ▶ Thursday, 1:15 – 2:30 PM
  - Implementation Models from DOE’s Better Buildings Challenge



# Thank You!

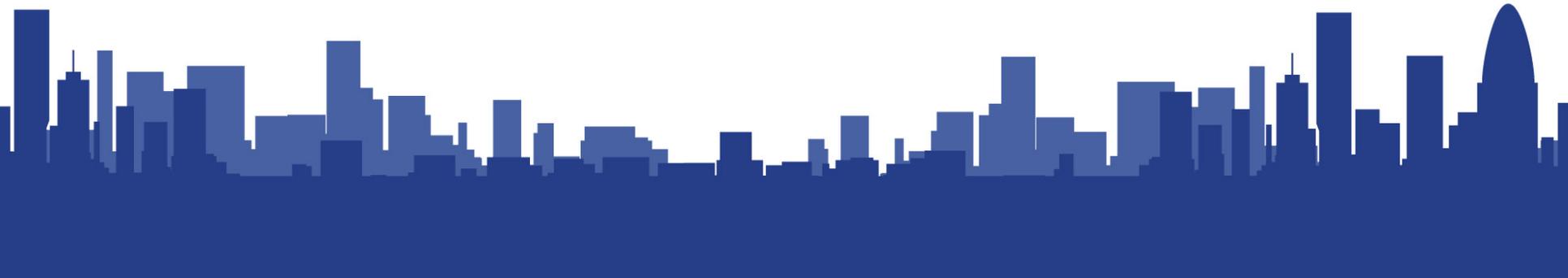




# 2013 Efficiency Forum - Sector Breakout II Retail, Grocery, and Food Service

May 30, 2013

2:45pm-3:30pm MT



- ❖ 2:45 Welcome and introductions
- ❖ 2:50 Recap of Better Buildings Challenge presentations (from session I)
- ❖ 3:00 Discussion:
  - Market Solutions team recap
  - Summary of BBA's 2013-2014 project team goals
  - Key takeaways - what we've learned at the Forum
  - Suggestions for next year's forum
- ❖ 3:30 Adjourn



**KOHL'S**

- ▶ Showcase project: [Kohl's Niles, OH Store](#)



**STAPLES**

that was easy.™

- ▶ Showcase project: [Staples Orlando Fulfillment Center #4895](#)



- ▶ Showcase project: [Enterprise Energy Management System](#)



**macy's inc**

- ▶ Showcase project: [Macy's at Metro Center](#)



- ▶ Showcase project: Coming soon! (See Challenge commitments [here](#))



**Walgreens**

- ▶ Showcase project: [Retail Pharmacy with Daylight Harvesting](#)

# Better Buildings Challenge Retail, Supermarket, and Grocery Partners



that was easy.<sup>sm</sup>

- ▶ Showcase project: [Staples Orlando Fulfillment Center #4895](#)



- ▶ Showcase project: [Retail Pharmacy with Daylight Harvesting](#)



- ▶ **Project Team sessions** – show of hands, who joined which ?
  - Market Solutions
  - Lighting and Electrical
  - Space Conditioning
  - Refrigeration
  - Food Service
  - Energy Management & Information Systems
  - Plug and Process Loads
  - Laboratories
  
- ▶ **Key Takeaways** – what we've learned at the Forum

## How Can the REA Engage with the Market Solutions Team?

Summary of potential Market Solutions retail working group concepts raised to date:

- ▶ Develop a methodology that could help companies re-evaluate existing assets and improve their depreciation treatment
  - There may be 3<sup>rd</sup> party service providers that could provide insight/serve as partners on this
- ▶ Incorporate depreciation and O&M benefits into technology benefit calculators (e.g., RTU, LEEP) or other tools that could highlight the impacts of these factors on project financials
- ▶ Work with EMS team to develop costs/benefits for advanced EMS systems (potentially to help shape utility program structures)
- ▶ Identify key non-tangible benefits of energy efficiency improvements in retail space and data needs to help quantify them
- ▶ Evaluate franchise financing options and their current uptake in the market
- ▶ Other? (e.g., leasing case studies, improving retuning tools, etc.)

- ▶ Discussion topics:
  - Most useful elements of the Better Buildings Alliance membership
  - Best way to provide program-wide Alliance communications (webinar blasts, etc.)
  - “Tech Spec” host site/demonstration opportunities
    - Examples from members that have participated
    - Barriers to engagement
  - Other (open forum)



- ▶ Feedback on format and content–
  - Thoughts on Day 1 members only, Day 2 with additional stakeholders
  - Project Team sessions and two separate sector sessions
  - Goal setting for 2013-2014
  - Other ideas?
  
- ▶ Suggestions for next year
  
- ▶ Please complete & leave session feedback forms at the registration desk

# The “Tech Spec” Demonstration-Host site Opportunity

DOE conducts field evaluations of products that meet the technical specifications to collect real world energy savings data. We are looking for site hosts to participate! Barriers?

➤ What tech specs?

- Heat pump water heaters
- Laboratory fume hoods
- Ultra-low temperature freezers
- Distribution transformers
- Gas heaters
- High performance rooftop units (RTUs)
- Lighting (high-efficiency troffers)

➤ Site hosts receive:

- A discounted product, depending on the technology
- An energy audit of their current system
- A case study analyzing their building and the energy savings gained through upgrading to high efficiency product.

## Upcoming Event Attendance

- ▶ Sept 30-Oct 3, 2013: Retail Industry Leaders Association (RILA) Retail Sustainability Conference (Orlando, FL)
  - <http://www.rila.org/events/conferences/retailsustainability/Pages/default.aspx>
- ▶ Oct 6-9, 2013: Edison Electric Institute (EEI) Key Accounts Workshop (Las Vegas, NV)
  - <http://www.eei.org/meetings/Pages/2013-10-06-NKAW.aspx>



# Thank You!

