“Green retrofits are the single most important measure that corporations and real estate owners can take to reduce their operating costs, raise commercial property values and achieve important environmental benefits like reduced carbon dioxide emissions.” - Deloitte
LA Better Buildings Challenge

- 20% energy savings by 2020
- 30 million square feet
- Make LA the greenest big city in the US
LA Better Buildings Challenge

7,000 Cars
LA Better Buildings Challenge

900,000 Trees
LA Better Buildings Challenge

7,000 Jobs
I’m slammed at work, and this stuff is confusing...

WHY DO I NEED ANOTHER CHALLENGE IN MY LIFE?
LA Better Buildings Challenge

DO THE PERFECT THING?

DO SOMETHING!

DO NOTHING

Retrocommissioning
BMS systems
Geothermal conditioning
Change light bulbs
Solar panels
Zero energy
Ice storage
Continuous commissioning
Change behavior
Green roof
Deep rejuvenation
Focus on energy
White roof

Get LEED certified
Holistic repositioning
Replace chiller

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Get LEED certified
Holistic repositioning
Replace chiller
LABBC Partnership Model

Institutional Partners

Technology & Service Partners

Financial Partners

Utility Partners

BUILDING OWNERS

Complementary programs

Discounts & Support

Financing products

Incentives and rebates
# Going Green, Makes Green

<table>
<thead>
<tr>
<th>Hard Value</th>
<th>Soft Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5% Reduction in operating costs</td>
<td>Market differentiation</td>
</tr>
<tr>
<td>6.8% Increase in building values</td>
<td>Growing tenant demand</td>
</tr>
<tr>
<td>9.2% Increase in ROI</td>
<td>Reduced risk of obsolescence</td>
</tr>
<tr>
<td>6.4% Increased occupancy</td>
<td>Lower energy cost risk</td>
</tr>
<tr>
<td>6.2% Increases in rent</td>
<td>Stay ahead of regulations</td>
</tr>
<tr>
<td>8.5% Reduction in operating costs</td>
<td>Reputation, public image</td>
</tr>
</tbody>
</table>

Energy Performance will Impact Values more and more directly

DOE and The Appraisal Foundation Announce New Partnership to Focus on Energy Performance and Building Appraisals

June 13, 2011 - 12:00am
WASHINGTON, DC - As part of the Obama Administration’s efforts to improve commercial building efficiency 20 percent by 2020, U.S. Energy Secretary Steven Chu today announced a partnership with The Appraisal Foundation that will help expand access to energy efficiency and building performance information for commercial buildings and help American businesses to reduce energy costs. Under the new partnership, the Department of Energy and The Appraisal Foundation will

http://www.eere.energy.gov/pdfs/doe_taf_mou_signed_6-10.pdf
Tenants Care about Green

- Fewer Sick Days
  - Average of 2.9 fewer sick days
  - Net impact of ~$5/sf occupied
- Higher Productivity
  - 55% report productivity improvement (~$20/sf)
- Recruitment and retention
  - Young people want green
- But what is the main reason tenants care?

LOWER TOTAL COST OF OCCUPANCY

Source: CBRE 2009 Green Building Study
The Tenant’s Perspective: An Example

*Source: Kilroy Realty Corporation*
## The Tenant’s Perspective

### Building Age

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>1983</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sq Ft</td>
<td>490,000</td>
<td>415,000</td>
<td>300,000</td>
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</table>

### Operating Expenses ($ psf)

<table>
<thead>
<tr>
<th>Department</th>
<th>2000</th>
<th>1983</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>1.32</td>
<td>1.80</td>
<td>2.33</td>
</tr>
<tr>
<td>Janitorial</td>
<td>1.15</td>
<td>1.56</td>
<td>1.97</td>
</tr>
<tr>
<td>Administration</td>
<td>0.96</td>
<td>1.60</td>
<td>2.09</td>
</tr>
<tr>
<td>Repairs &amp; Maintenance</td>
<td>1.34</td>
<td>1.73</td>
<td>1.05</td>
</tr>
<tr>
<td>Management Fees</td>
<td>0.91</td>
<td>0.77</td>
<td>1.67</td>
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<tr>
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<td>Non-Reimbursable</td>
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</tr>
</tbody>
</table>

#### Expenses ex Tax

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>1983</th>
<th>2001</th>
</tr>
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<tbody>
<tr>
<td>Utilities</td>
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<td>8.90</td>
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<tr>
<td>RE Tax Estimate</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Other</td>
<td>1.71</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Expenses

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>1983</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental Rate (NNN)</td>
<td>?</td>
<td>?</td>
<td>25.97</td>
</tr>
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</table>

### Total Cost to Tenant

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<tr>
<th></th>
<th>2000</th>
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<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost to Tenant</td>
<td>?</td>
<td>?</td>
<td>40.50</td>
</tr>
</tbody>
</table>

*Source: Kilroy Realty Corporation*
### Operating Expenses ($ psf)

<table>
<thead>
<tr>
<th>Category</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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</thead>
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<tr>
<td>Utilities</td>
<td>1.32</td>
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<td><strong>12.90</strong></td>
<td><strong>14.53</strong></td>
</tr>
</tbody>
</table>

- Rental Rate (NNN)
  - Year 1: 27.90
  - Year 2: 27.60
  - Year 3: 25.97

- Total Cost to Tenant
  - Year 1: 40.50
  - Year 2: 40.50
  - Year 3: 40.50

*Source: Kilroy Realty Corporation*
# The Owner’s Perspective

## Operating Expenses ($ psf)

<table>
<thead>
<tr>
<th></th>
<th>1.20</th>
<th>1.30</th>
<th>1.40</th>
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## Rental Rate (NNN)

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<td></td>
<td></td>
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</table>

## Total Cost to Tenant

|                      | 40.50| 40.50| 40.50|

## Additional Net Income ($ psf)

|                      | 1.92 | 1.63 |      |

## Additional Net Income

|                      | 938,952| 678,641|      |

## Additional Bldg Value (7cap)

|                      | 13,413,604| 9,694,868|      |

*Source: Kilroy Realty Corporation*
The Owner’s Perspective

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities Savings Only ($ psf)</td>
<td>1.02</td>
<td>0.53</td>
</tr>
<tr>
<td>Additional Net Income</td>
<td>497,047</td>
<td>222,660</td>
</tr>
<tr>
<td>Additional Bldg Value (7cap)</td>
<td>7,100,667</td>
<td>3,180,855</td>
</tr>
</tbody>
</table>

*Source: Kilroy Realty Corporation*
## Market Potential

Energy Efficiency is a massive investment opportunity

<table>
<thead>
<tr>
<th>Percent Market Penetration</th>
<th>Retrofit Cost Per Square Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1/sf</td>
</tr>
<tr>
<td>10%</td>
<td>$135m</td>
</tr>
<tr>
<td>25%</td>
<td>$340m</td>
</tr>
<tr>
<td>50%</td>
<td>$680m</td>
</tr>
</tbody>
</table>

* >1.8B square feet of commercial space in LA County, Source: CoStar 4.18.11

** Figures in table exclude the approx. 25% of properties whose mortgages are held in ABS, CMBS or CDO trusts.
OK, I’m listening...

SO WHO ELSE IS INVOLVED?
LABBC Partners

*As of 3/20/2013
LABBC Founding Partners
Commercial Buildings
Municipal Buildings
Residential Buildings
The Foundation Has Been Laid

- 91 ASHRAE Level II Audits in 2012 (>35M square feet)
- 32 of 91 (35%) have already implemented or budgeted to implement projects
- Savings equivalent to taking over 2,500 cars off the road or powering over 1,800 homes for a year

### Project Status

- **Completed**: 24%
- **Planned**: 12%
- **Support Needed**: 30%
- **Following Up**: 11%

### Projected Annual Dollar Savings

- **Projected Annual Dollar Savings**: $2,279,674
- **ECM cost after Rebate**: $12,437,096
- **ECM Payback (in years)**: 5.46
- **Estimated Saved kWh**: 17,118,551
- **Estimated Saved Gal./CCF**: 10,515,972
- **Estimated Saved Therms**: 31,092
The Foundation Has Been Laid

- Financing could unlock another $21 Million in Investment
- Support in securing Rebates and Incentives could unlock $14 Million more
- Project Management support could unlock another $17 Million

Support Requested

- Rebate Identification: 30%
- Financing Assistance: 11%
- Project Management: 22%
- Additional Research: 37%
The Data Spoke, We Listened

Individualized Case Management & Special Incentives to LABBC Support BBC Participants

Project Identification & Development through LADWP “EETAP”*
- Automated Data Acquisition
- Energy Audits
- Project Development Support

Financing & Implementation
- Technology Discounts
- Technical Services Discounts
- Contractor Introductions
- Rebate Application Support
- Tax Incentive Support
- Project Financing Support

* The Energy Efficiency Technical Assistance Program is in development, precise offerings still TBD.
Energy Audits & Project Support

Subsidized Energy Audits
• Pre-screened, Approved Engineering Firms
• Comprehensive Report Deliverable
• Unbiased Analysis and Support in reviewing the results

Project Development Support
• Dedicated Project Manager
• Direct access to Department of Building & Safety
• Unbiased advice on available technology and project implementation strategy
• Rebate assistance and support

* The Energy Efficiency Technical Assistance Program is in development, precise offerings still TBD.
Free automated utility tracking and analytics for participating properties. Track your building’s water, electricity and natural gas use all in one place. The online software does all the work, no hardware installation required.

**Benefits:**
- Automatically import consumption and cost data
- Export to Portfolio Manager for Energy Star ratings
- Monitor and analyze performance through intuitive visualizations
- Measure and verify the effectiveness of building retrofits
- Track your building’s performance against LABBC goals
- Share your building information with your organization and with external partners
LABBC assists Partners in evaluating financing options to enable implementation of deeper projects while preserving capital for investment in core business activities and enhancing cash flow.

<table>
<thead>
<tr>
<th>Historical Barriers</th>
<th>New Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inability to secure repayment drives up rates, shortens terms</td>
<td>Repayment secured through property taxes or utility bills</td>
</tr>
<tr>
<td>Assets held by single-purpose LLC with no credit</td>
<td>Repayment secured by contract or by property, not owner credit</td>
</tr>
<tr>
<td>Owner desires to preserve borrowing capacity</td>
<td>Off-balance Sheet Treatment preserves borrowing capacity</td>
</tr>
<tr>
<td>Competition for capital</td>
<td>100% external financing</td>
</tr>
<tr>
<td>“Split-incentives” between landlords and tenants</td>
<td>Repayment structured as an operating expense, like utility bills</td>
</tr>
<tr>
<td>Short hold period</td>
<td>Repayment transfers with property</td>
</tr>
<tr>
<td>Short payback requirements</td>
<td>Longer term financing = cash flow +</td>
</tr>
</tbody>
</table>
No upfront cost for necessary equipment replacement
Discounted Products & Services

- **Discounts** from distributor pricing on high-efficiency building products

- Free analysis of accelerated depreciation and other **tax benefits** of going green

- Deep bench of resources for **technical services**

- Access to a short-listed, qualified group of **energy efficiency financing** entities

- Free, **non-biased** assistance with **financial analysis** of energy efficiency investment opportunities
Tax Incentives for EE Retrofits

But if you’re going green…
Cost Segregation
  - Provides a means of accelerating the depreciable life of certain improvements

2012 Tangible Property Regulations
  - Building owners may now write down the value of building components disposed of during building improvement projects.

EPAct 179-D Tax Deduction
  - Tax deduction of up to $1.80/sf for properties that improve performance above ASHRAE 90.1-2001
Plug into the LABBC Network

Educational & Networking Events Co-hosted with LABBC Partner Organizations

LABBC Partner Organizations

- LADWP
- So Cal Gas
- BOMA of Greater Los Angeles
- LA Business Council
- LA Cleantech Incubator
- USGBC – Los Angeles
- LA Area Chamber of Commerce
- LA 2030 District
- And more to come…
Showcase Projects

Corporate Partners
- Best Buy
- Enterprise Energy Management System
- All US Big Box Locations
- CBRE
- Oakland City Center
- Oakland, CA
- Forest City Enterprises
- South Bay Galleria – Energy Reduction Project
- Redondo Beach, CA
- HEI Hotels & Resorts
- San Diego Marriott La Jolla
- La Jolla, CA
- IHG (InterContinental Hotels

State and Local Partners
- Atlanta, GA
- Portland, Oregon
- Beaverton, OR
- Cleveland, OH
- Fire Station 1
- Cleveland, OH
- Denver, CO
- The Alliance C Building
- Denver, CO

Advance Paper Box – Energy Upgrade Project
Showcase Project: City of Los Angeles

Location: Los Angeles, CA
Project Size: 65,000 Square Feet
Financial Overview: Project Cost $748,000

Annual Energy Use
Baseline (2011): 373 kWh/ft²
Expected: 346 kWh/ft²
Actual: COMING SOON

Expected Energy Savings: 16%
Annual Energy Cost
Baseline: $491,000
Expected: $452,000
Actual: COMING SOON

Expected Savings: $79,000
Upcoming LABBC Events

LABBC Building Technology Showcase
• Fast Pitch Presentations
• Panel Discussions
• Networking

LABBC Webinar Series
• New Tax Incentives for EE retrofits
• Staying ahead of impending legislation
• Innovations in Energy Efficiency Project Financing
• And more
How (and Why) to Get Involved

Property Owner Partners
• Simple enrollment process, no penalties, access LABBC benefits

Institutional Partners
• Cross-promote programs and services, pool resources, drive synergies, expand impact

Technology, Service & Financial Partners
• Build brand equity, gain exposure
Take the Challenge Today!

- Enrolling allows you to take advantage of the program’s resources
- Simple two-page enrollment form
- No penalties if you cannot meet the 20% goal
- Data is reported only in aggregate

Your building will benefit from helping make LA the greenest big City in the US
David Hodgins
Executive Director
LA Better Buildings Challenge
970-319-6611
david@la-bbc.com

Ben Stapleton
Director, Commercial Property
LA Better Buildings Challenge
310-737-8379
ben@la-bbc.com

Operating costs drop 8.5%
Building value rises 6.8%
ROI improves 2.5%
Occupancy rises 1%
Rents rise 19.2%

4. USGBC