Engaging Commercial Tenants and Occupants
Tenant Influence on Energy Use

“...We designed the best, most energy efficient building you could possibly want, but then we ran into one big problem...”

...the people moved in.”

-- Anonymous Architect
Today’s Panel

• Cindy Jacobs, Senior Advisor, EPA ENERGY STAR

• Daniel Egan, Vice President, Head of Sustainability and Utilities at Vornado Realty Trust

• Will Teichman, Senior Director of Strategic Operations at Kimco Realty Corp.
2017 ENERGY STAR TENANT SPACE
This space has been verified to meet strict energy design criteria set by the U.S. EPA
Energy Efficiency Improvement Act of 2015

• Focused on significant potential for energy savings and environmental benefits through greater efficiency in tenant spaces

• Directed EPA to develop recognition for efficient tenant spaces as part of “a voluntary program within...Energy Star...to promote energy efficiency in separate spaces leased by tenants”
Guideposts for EPA

- Objective
- Simple
- As indicative of expected performance as possible
- Encourages good, cost-effective design
- Provides opportunity for tenant-landlord engagement
- Relatively easy for EPA to administer
- Aligns with and supports ENERGY STAR whole building recognition
EPA Steps to Implement Act

• Spring 2016
  • Held roundtable discussion with key ENERGY STAR partners and tenants to understand opportunities and challenges to efficiency in tenant spaces
  • Developed draft recognition criteria
  • Began working with Department of Energy on simple tool

• Fall 2016 – Released proposed criteria
  • Held stakeholder meetings in DC and San Francisco
  • Widely circulated proposed criteria for comment

• August 2017 – Launched pilot for office tenants
How Will Tenants Earn Recognition?

• Meet 5 criteria and complete an application provided by EPA
  1. Estimate Energy Use
  2. Meter
  3. Light Efficiently
  4. Purchase Efficient Equipment
  5. Share Data

• Have a Professional Engineer or Registered Architect verify the information and stamp the application

• Submit the completed, stamped application to EPA – includes landlord information if applicable

• EPA reviews and awards the recognition
Starting with Pilot: Charter Tenants

- Office tenants
- Broad and diverse group of Charter Tenants
  - Over 140 spaces, and 70 organizations
  - Represent 25 states, plus DC and Puerto Rico
  - Include occupied tenant space, as well as in design and build/fit-out
- EPA is working closely with Charter Tenants (and landlords where involved) to test concept and implementation
Timeline

• September 2017 – Early 2018
  • EPA works with Charter Tenants to pilot the recognition
  • Refine the criteria and application materials

• 2018
  • First ENERGY STAR Tenant Space recognitions awarded to qualifying Charter Tenants
  • EPA to assess changes needed to bring to the market, and work to introduce recognition for all office spaces

• 2018 and Beyond
  • EPA to consider making recognition available to retail and warehouse tenant spaces
www.energystar.gov/TenantRecognition
Engaging Commercial Tenants and Occupants

Daniel Egan
Vice President, Sustainability & Utilities
Vornado Realty Trust

2007: Merchandise Mart gains LEED Silver Certification in Chicago (largest LEED Certified building in USA).

2008: Vornado establishes corporate sustainability program, commitment to energy efficiency, resource conservation.

2009: Vornado commissions 6.2 megawatt cogeneration plant at One Penn Plaza.


2011: Vornado installs 1 megawatt solar panel installation on the roof of Bergen Town Center in Paramus, NJ.

2014: $450 million issued in Green Bonds; proceeds to go towards energy efficiency and sustainability work.

2012-present: Vornado launches Energy Efficiency Capital Expenditure program, dedicating funding to projects whose energy and resource conservation have a measurable reduction to operating expense.

Early 2000s: Vornado develops electricity submetering network to visualize and manage energy consumption.
Submetering Legislation in VNO Markets

California: Title 24
- Newly installed electrical service must be equipped with metering that measures both instantaneous consumption and demand readings.
- Electrical power distribution systems to permit disaggregation of loads downstream from the service meter.

New York: Local Law 88
- Commercial spaces over 10,000 SF must be submetered if direct meter service is not available.
- Landlords must present tenants with consumption information on a monthly basis.
Submetering and Energy Efficiency

**Split Incentive:** When tenants do not pay their own electricity, they are not financially incentivized to reduce consumption.

**The Need to Collaborate:** Without a transactional relationship in place, Landlord and Tenant often do not interact on energy consumption.

**Recognized Best Practice:** Submetering for electricity is a requirement to achieve Energy Star for Tenant designation.

<table>
<thead>
<tr>
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<th>Resolves Split Incentive Issue</th>
<th>Brings Together Landlord and Tenant</th>
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<tbody>
<tr>
<td>Electric Rent Inclusion</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Direct Meter</td>
<td>X</td>
<td>-</td>
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<tr>
<td>Submeter</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
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# Portfolio Investment in Submetering

## Electricity Submeter and Direct Meter Tenants by Property Type

<table>
<thead>
<tr>
<th></th>
<th>Submeter</th>
<th>Direct Meter</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Tenants</td>
<td>%</td>
</tr>
<tr>
<td>Office</td>
<td>86%</td>
<td>1,098</td>
<td>9%</td>
</tr>
<tr>
<td>Retail</td>
<td>15%</td>
<td>22</td>
<td>76%</td>
</tr>
<tr>
<td>Residential</td>
<td>9%</td>
<td>310</td>
<td>87%</td>
</tr>
<tr>
<td>Total</td>
<td>74%</td>
<td>1,430</td>
<td>19%</td>
</tr>
</tbody>
</table>

Includes NY, CA, IL properties
Beyond Just Billing

Left: Lighting Retrofit Project, Before and After

Right: Steam valve repair, before and after
Tenant Behavior Impacts Landlord Goals

**TOTAL REDUCTION GOAL**
35% BY 2026 OVER 2009 BASELINE

**GHG EMISSIONS REDUCTION GOALS**

**LANDLORD EMISSION REDUCTION**
40% BY 2026
What's being cut:
- HVAC-Related Steam
- Fan Systems
- Elevators
- Lighting
- Pump Systems
- Other

**TENANT EMISSION REDUCTION**
30% BY 2026
What's being cut:
- Lighting
- Plugload
- Supplemental HVAC and Other
It’s all about Tenant Engagement!

Who Would Be Eligible to Apply?

- Tenants in office spaces (with retail and warehouse to follow)
- Tenants with operational control of (at minimum):
  - Lighting
  - Plug and miscellaneous loads
- Tenants occupying contiguous space with at least one entrance to common space (e.g. office suite; lobby; elevator)
- Tenants at any major stage of lease:
  - Design
  - Build-out
  - Operation
Empower your Tenants with Relevant Data

Left: Customized Tenant Baseline Report for NYC 80 x 50 Plan
Right: Submeter Billing Notification
Engaging Commercial Tenants

Will Teichman
Sr. Director of Strategic Operations
Kimco Realty Corporation
KIMCO SNAPSHOT

• Kimco Realty Corporation
• 50+ year old Real Estate Investment Trust (REIT)
• One of North America’s largest owners and operators of open-air shopping centers
• 545 employees, headquartered in New Hyde Park, NY
• NYSE: KIM, S&P 500 Index
• Launched formal sustainability program in 2011
NATIONAL PORTFOLIO, LOCALLY MANAGED

Over 500 shopping centers (84 million square feet) across the top U.S. metropolitan markets:

Over 8,000 leased tenant spaces, including:

- **NEVER Region**: 102 shopping centers, 966 tenants, 241 employees
- **Central Region**: 87 shopping centers, 1,339 tenants, 54 employees
- **Western Region**: 142 shopping centers, 3,123 tenants, 108 employees
- **Southern Region**: 108 shopping centers, 2,003 tenants, 76 employees
- **Mid-Atlantic Region**: 85 shopping centers, 1,295 tenants, 67 employees

Logos of various companies, including TJX, The Home Depot, Walmart, Safeway, Lowe's, Dollar Tree, and Subway.
As of 2009, U.S. commercial building stock totaled **84 billion square feet**, broken out into the following sectors:

- **28%** Industrial
- **21%** Retail
- **27%** Multi-Family
- **14%** Office
- **6%** Health & Hospitality
- **4%** Mixed

Within these sectors, owners generally adhere to the following lease structures:

**Gross Lease** vs **Net Lease**

- **Gross Lease**
  - Tenant pays a fixed all-inclusive rent that covers the premises, utilities, maintenance, etc.
  - Landlord bears responsibility for most maintenance and building improvement activities

- **Net Lease**
  - Tenant pays a base rent, then pays operating expenses either directly or through a “pass through” charge
  - Landlord only maintains common areas, and relies on tenant charge recoveries to recoup capital project costs

**Examples**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Gross Lease</th>
<th>Net Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td></td>
<td></td>
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<tr>
<td>Multi-Family</td>
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<tr>
<td>Retail</td>
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<tr>
<td>Office</td>
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<tr>
<td>Health Care</td>
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Source: Slicing, Dicing and Scoping the Size of the U.S. Commercial Real Estate Market, Florance et al, © CoStar 2010
INDUSTRY CONTEXT: RETAIL ENERGY USE

- Site infrastructure often dedicates a single utility meter to each tenant
- Net Lease dictates that in situations where they don’t control their meter, tenants reimburse landlord for this expense
- Common area energy expenses are included in Common Area Maintenance (CAM) charges
DRIVING SUSTAINABILITY IN OUR BUSINESS

Issues

- Energy & Emissions
- Water
- Waste
- Building Materials

Approach

- Measurement
- Operations
- Retrofits
- Engaging Tenants

COMMON AREA ENERGY CONSUMPTION

- 2011: 122,759 MWH
- 2012: 124,318 MWH
- 2013: 114,031 MWH
- 2014: 106,866 MWH
- 2015: 103,626 MWH
- 2016: 100,857 MWH

18.2% decrease from 2011 to 2016
Overview

• Developed a standard spec for tenant build-outs, as a part of Kimco’s green leasing effort
• Spec has two levels:
  **Base**
  • Low or no-cost environmentally preferable materials and construction processes
  • Energy Star® and Water Sense® products standard
  **Premium (LEED Ready)**
  • Increased lighting and HVAC efficiency requirements
  • Specs set to payback within typical 5-yr lease term
ENGAGING TENANTS – SUB-METERING

Overview

• Most properties in Kimco’s portfolio were built by another developer

• In many cases, retail properties are “master-metered” (tenants share a meter) due to cost considerations, local/utility norms, etc.

• Pro-rata share (of sq ft) billing is the standard

• Sub-metering our tenants leads to:
  • Tenant access to performance data
  • Fair tenant billing based on actual consumption, leading to improved Kimco recoveries
  • Economic incentive for tenants to conserve

Goal: Sub-meter 100% of tenant electric, gas & water by YE 2018.

500 Properties
~325 (65%) In Scope

9,000 units
~4,600 (50%) In Scope
Overview

- ~85% of utility consumption occurs inside of tenant spaces at open air retail centers
- After paying rent and payroll, retailers expend an additional 5-10% of sales to cover utilities, maintenance, marketing and other expenses
- By helping our tenants improve the efficiency of their operations, the total cost of occupancy at Kimco centers is lower and tenants have a greater likelihood of succeeding
FOR MORE INFORMATION

Corporate Responsibility Site
http://kimcocr.com

2016 Corporate Responsibility Report

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