

CHELSEA BUILDING

Efficiency Investment Plan

Aligning Interests for Scalable Sustainability

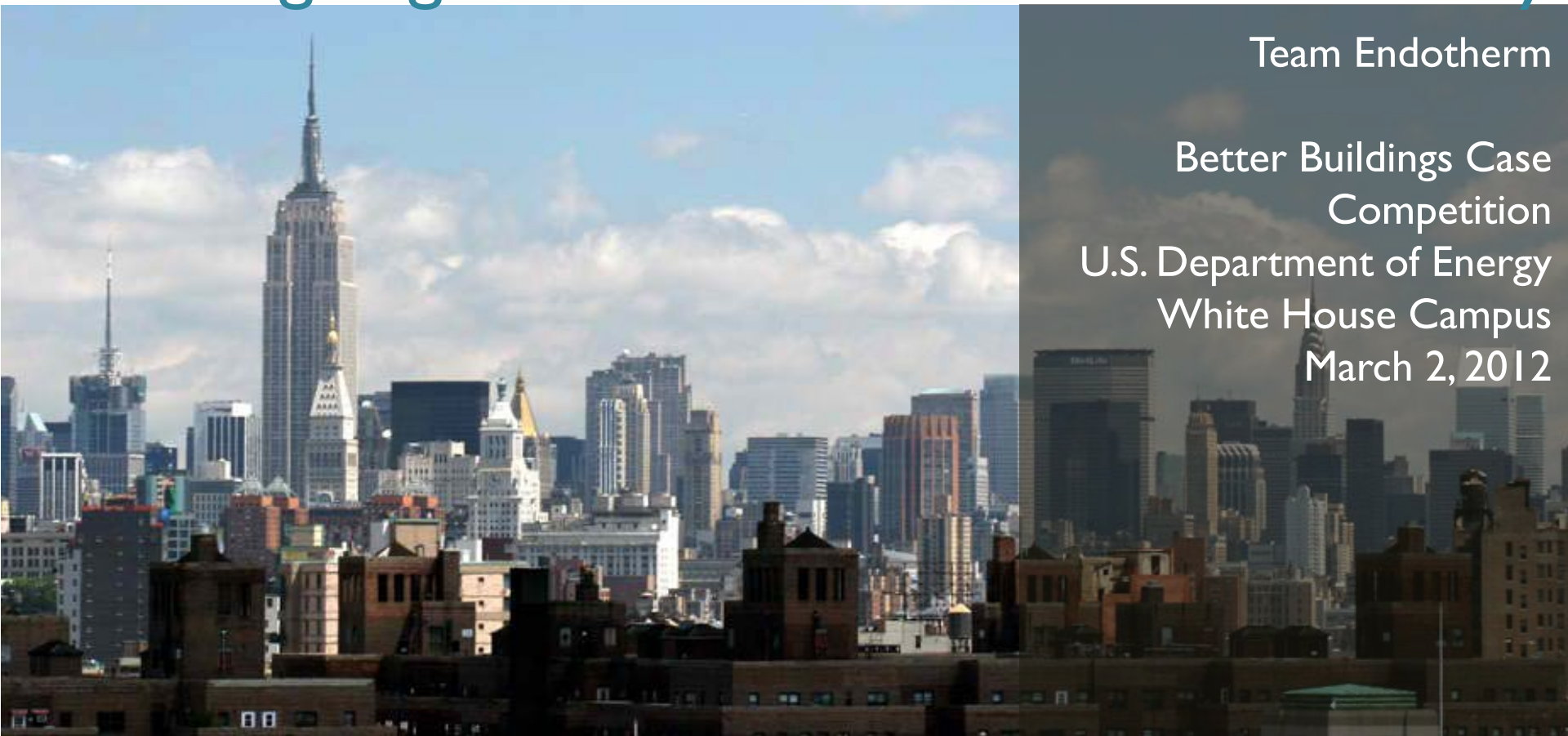
Team Endotherm

Better Buildings Case
Competition

U.S. Department of Energy

White House Campus

March 2, 2012



The Chelsea Building, NYC

Investment Goals

Maximize operating revenues and long-term asset value by:

- Reducing operating costs
- Maintaining a strong relationship with the law firm
- Maximizing revenues from smaller tenants

While at the same time:

- Making tenants partners in efficiency
- Achieving GGBP compliance

The Chelsea Building, NYC

Investment Strategy

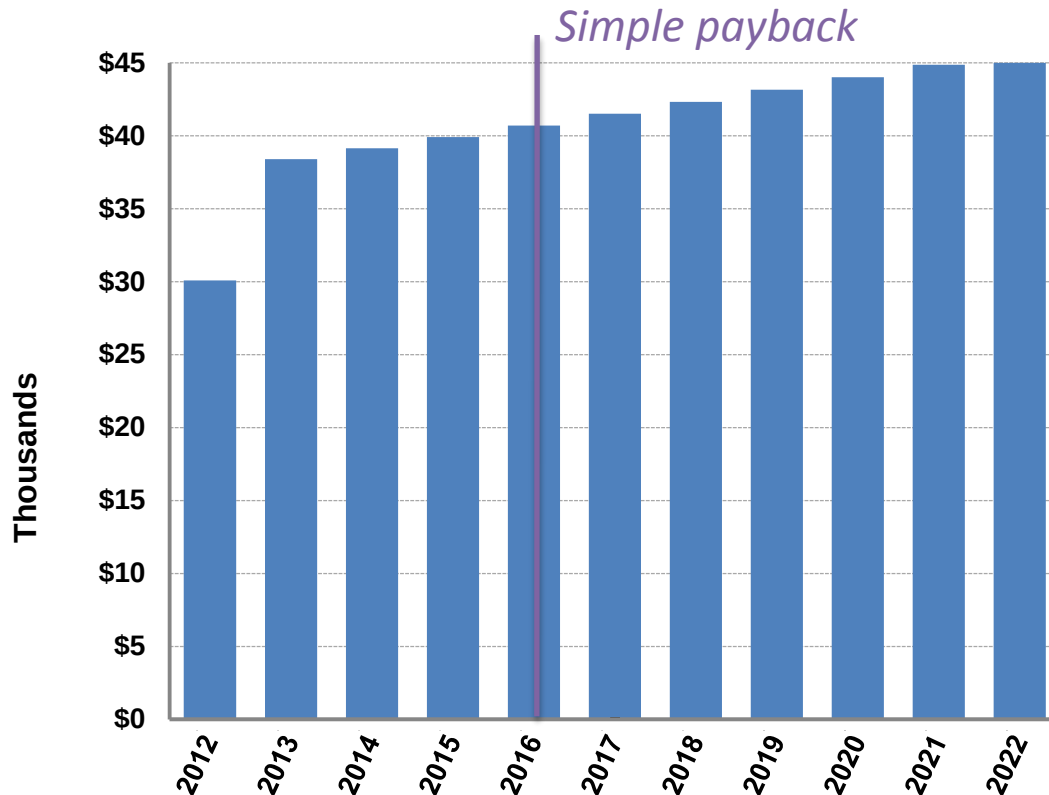


Success requires careful phasing of actions

- Changes to tenant leases
- Base building Investments
- Tenant metering and lighting upgrades

Current Conditions

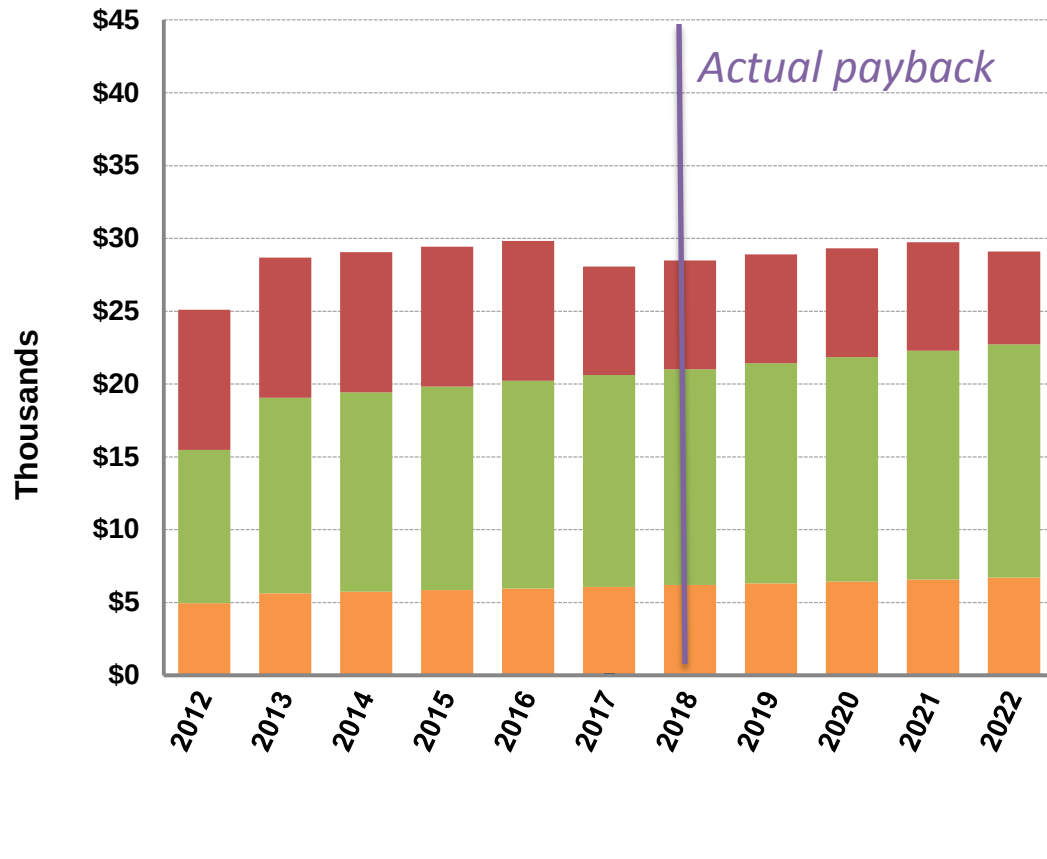
Technical Potential



- 19 ECM's
- Invest \$179,600
- Save \$37,653/yr
- 4.8 year payback
- -6% consumption
- -3% energy costs
- Increase asset value by ~\$500,000
- Increase PM score from 62 to 69

Current Conditions

Impact of Leases



Owner

- Invests \$179,000
- Saves ~\$29,000/yr
- 6.3 year payback

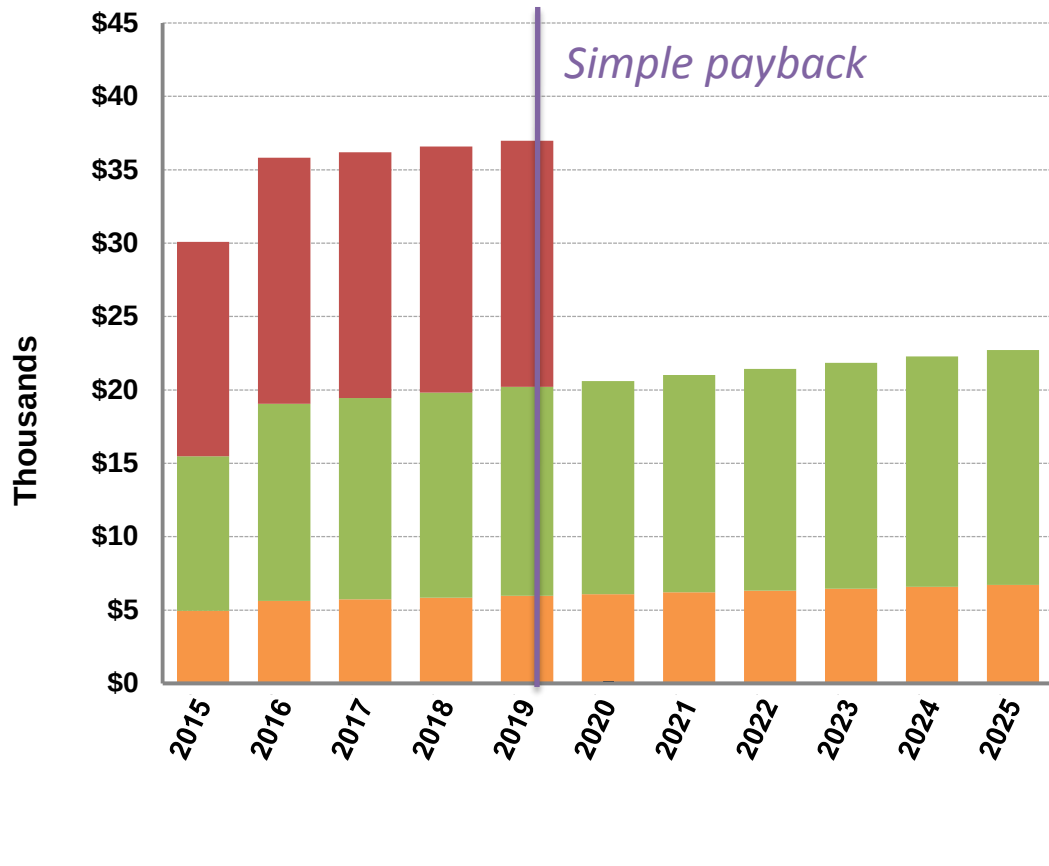
Law Firm

- Saves ~\$9,000/yr

- Current Escalatable Leases
- Fixed Factor Leases
- Capex Passthrough

Current Conditions

An Energy-Aligned Lease

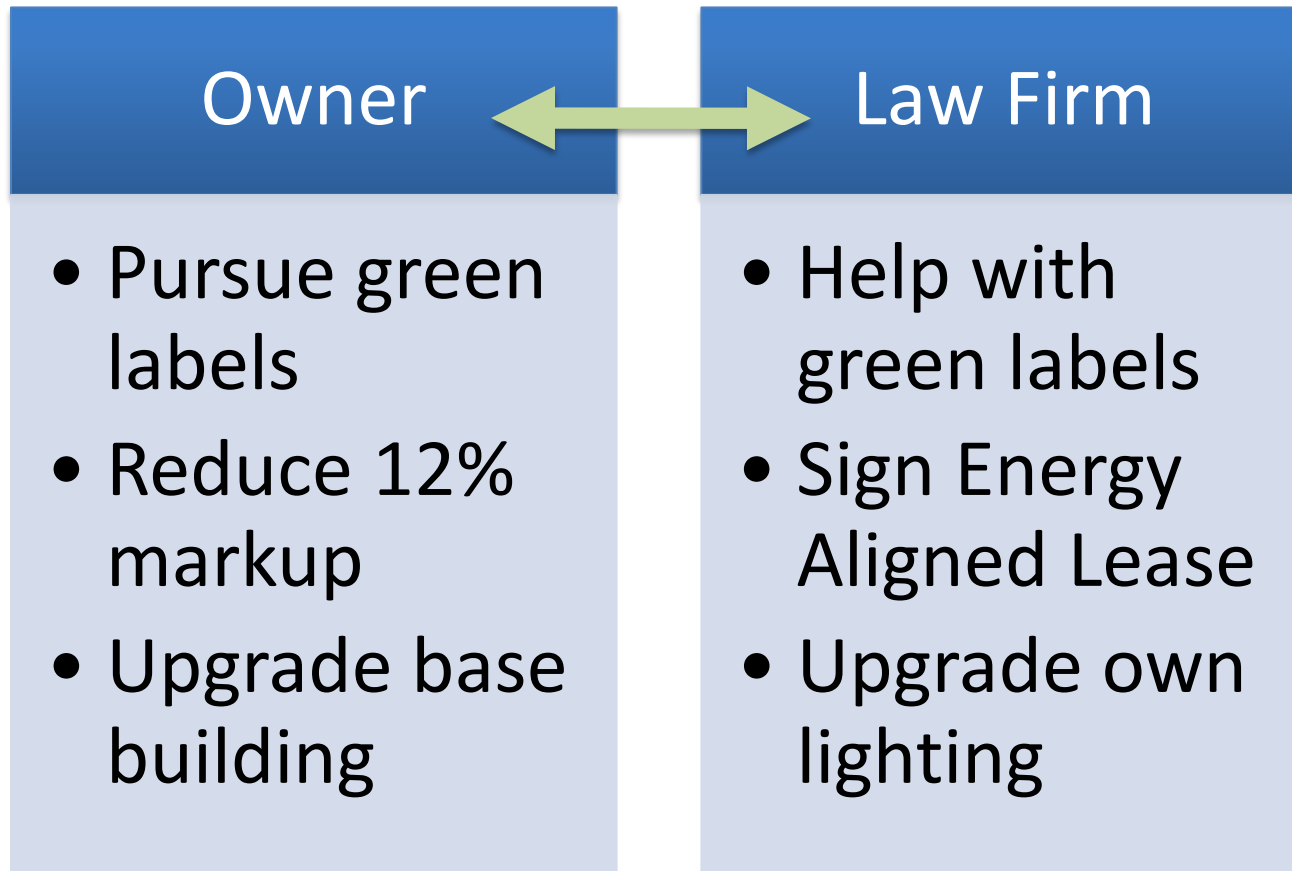


Pass through capital expenses “to the extent of savings”

After payback, owner and tenants share benefits

Step 1

Engage Law Firm



Step 2

Complete Retrofit

MEASURE	Electricity Savings	Gas Savings	Cost	ConEd Grant
Retro-commissioning (10 items)	\$12,226		\$2,230	\$30
Replace Filters	\$2,612		\$3,500	
Retrofit elevator lighting	\$767		\$1,800	\$500
Supply air temperature reset	\$4,492		\$8,200	
Retrofit lobby lighting	\$1,995		\$6,480	\$330
Enable automatic chilled water temperature reset	\$3,550		\$2,400	\$200
Replace older CHW/CW motors with efficient models	\$435		\$3,800	\$240
Fitness center lighting retrofit	\$161		\$1,900	\$500
Steam boiler to HW boiler		\$9,349	\$156,000	\$15,000
VFD on CHW pumps and variable bypass controls	\$2,066		\$11,500	\$600
TOTAL	\$28,304	\$9,349	\$197,810	\$17,400

Cost: \$198,000

- Incentives: \$17,400

Invest: \$179,600

- Save \$37,653/yr
- 4.8 year payback
- -6% consumption
- -3% energy costs
- +\$500,000 AV

Step 3

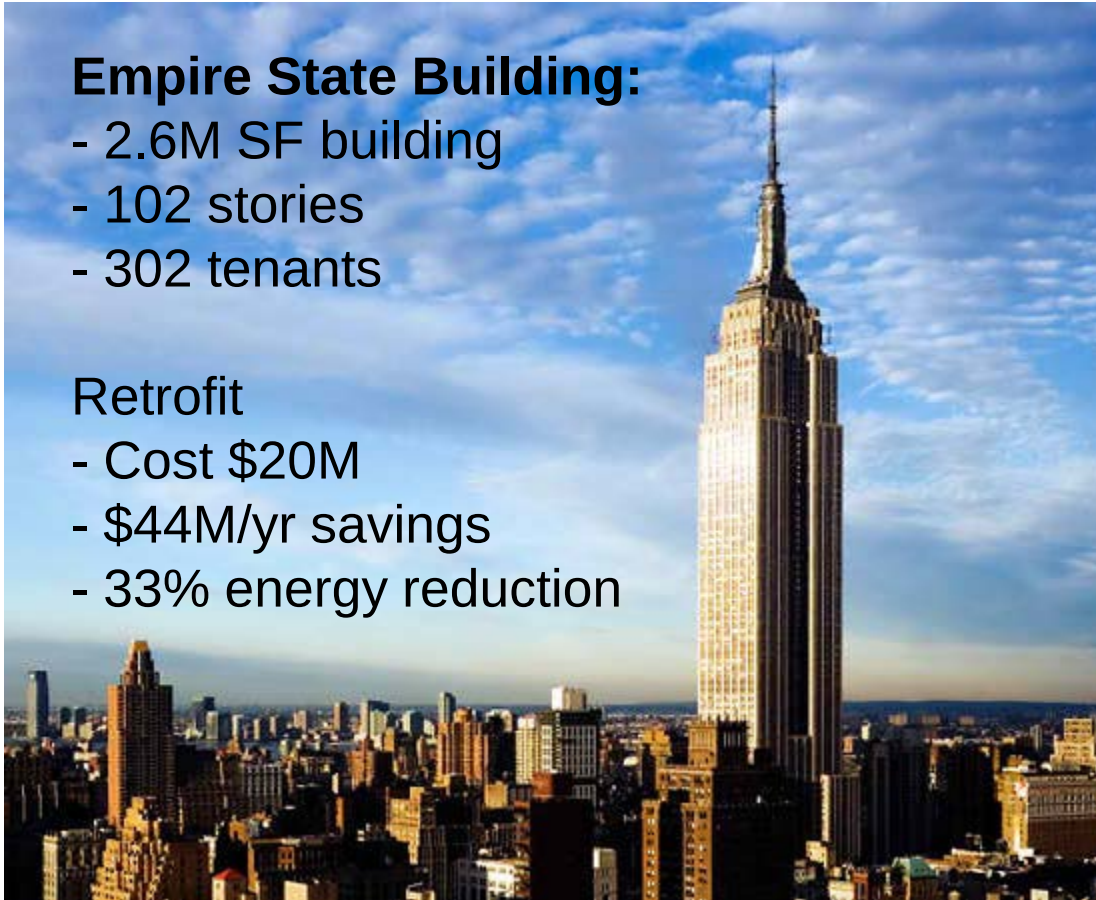
Re-Align Small Tenants

Empire State Building:

- 2.6M SF building
- 102 stories
- 302 tenants

Retrofit

- Cost \$20M
- \$44M/yr savings
- 33% energy reduction



Chelsea Building:

Sub-meter tenants ASAP
after retrofit

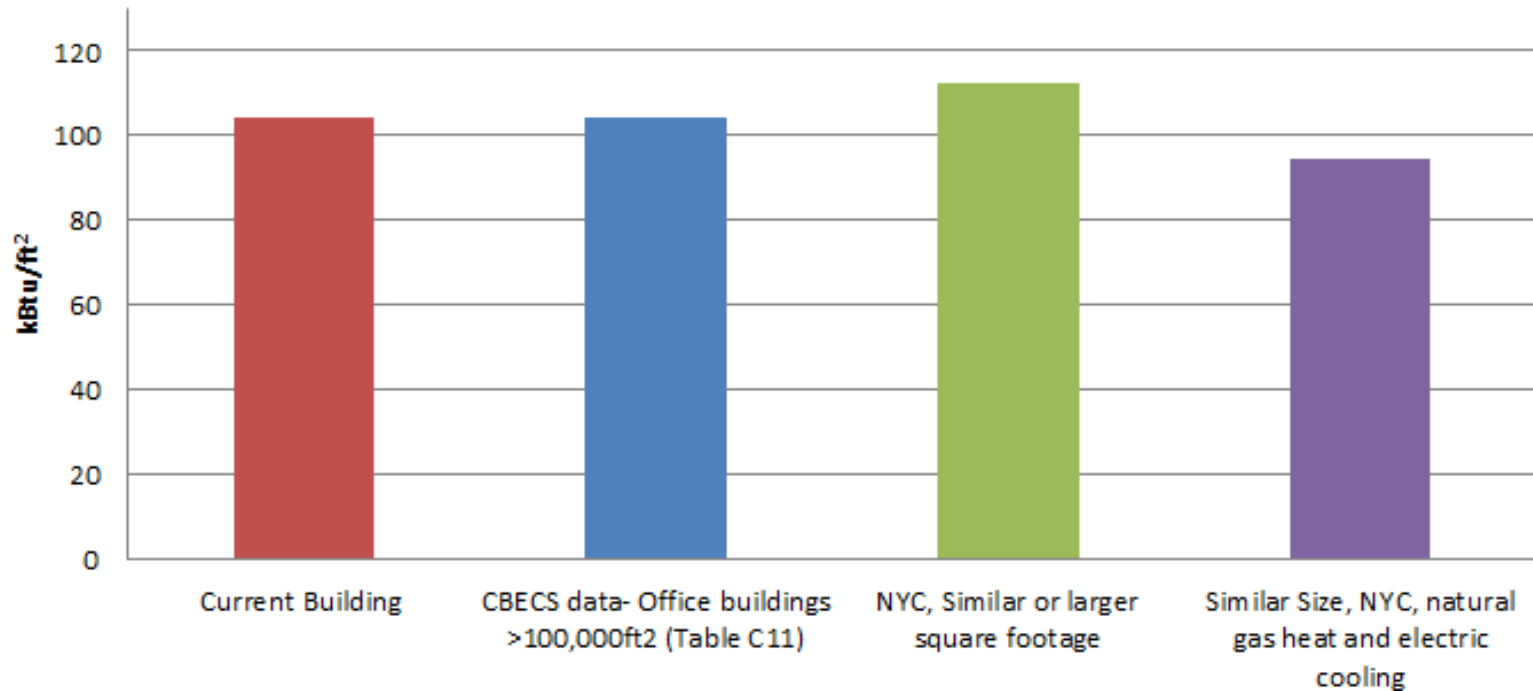
Upgrade lighting as leases
turn over

Consider combining 2nd
floor space after label is
achieved

Step 4

Go for Green!

Building's Current EUI as compared with National, NYC-specific, and NYC-specific with matched mechanicals

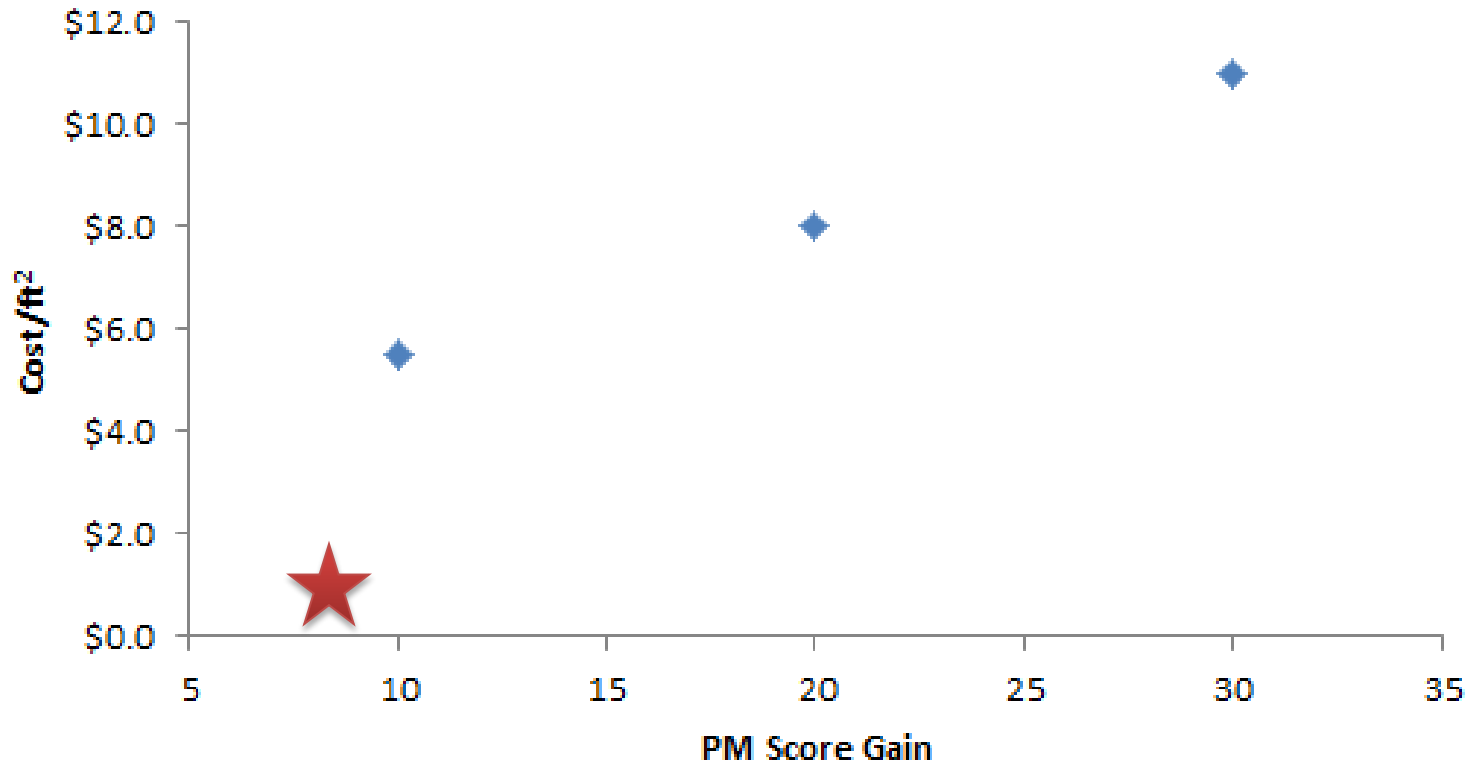


Right now, the Chelsea Building is about average...

Step 4

Go for Green!

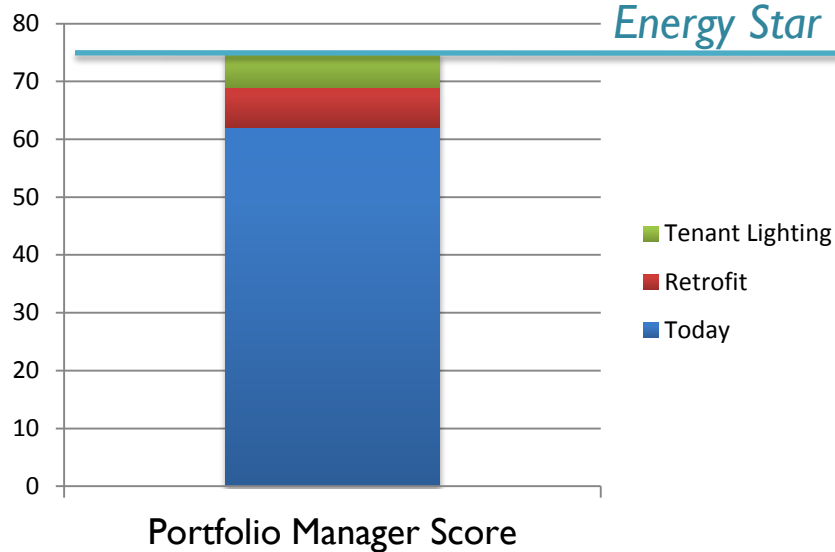
Cost/ft² as a function of PM increase



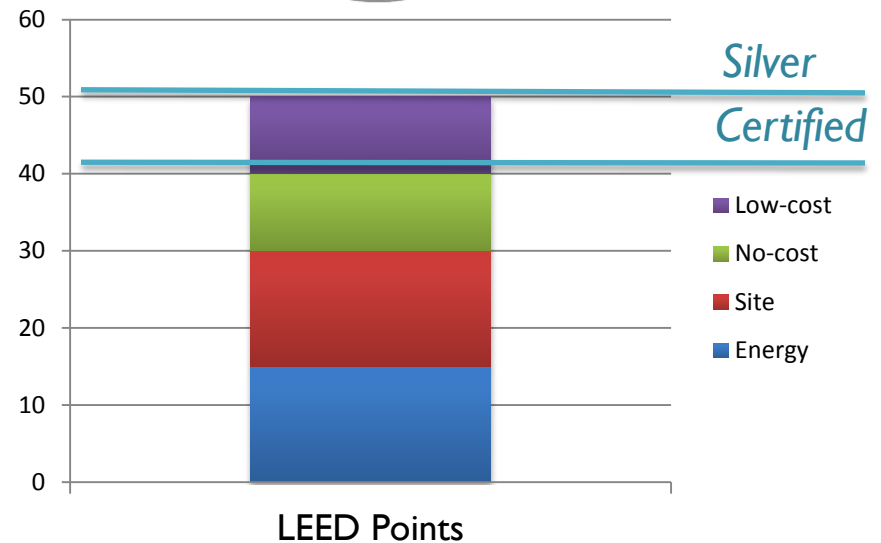
...But it can increase its Portfolio Manager score for \$0.65/SF!

Step 4

Go for Green!



Energy Star = no extra cost



Certification = no extra cost
Silver = low cost (~\$1/SF)