Energy-Aligned Lease Language: Solving the Split Incentive Problem

December 13, 2011

Energy retrofits can:

Save building owners and tenants money.

Improve reliability and occupant comfort.

Create green jobs in the community.

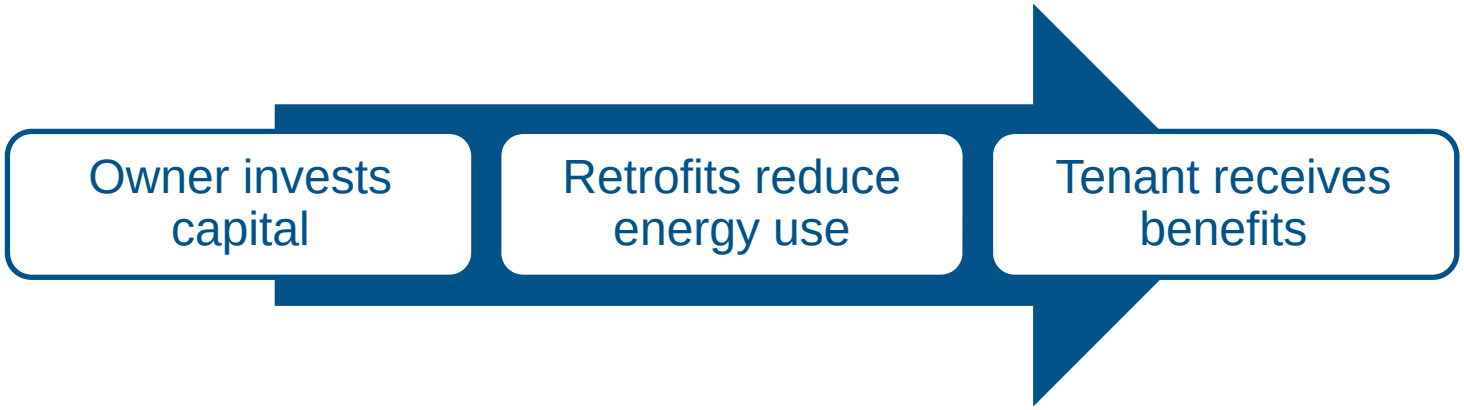
Reduce greenhouse gas emissions.

But…

Misaligned incentives can get in the way.

A "misaligned incentive," often called a "split incentive": a transaction where the benefits do not accrue to the person who pays for the transaction.

The split incentive problem in energy: the building owner pays for retrofits, but cannot recover savings from reduced energy use that accrue to the tenant.

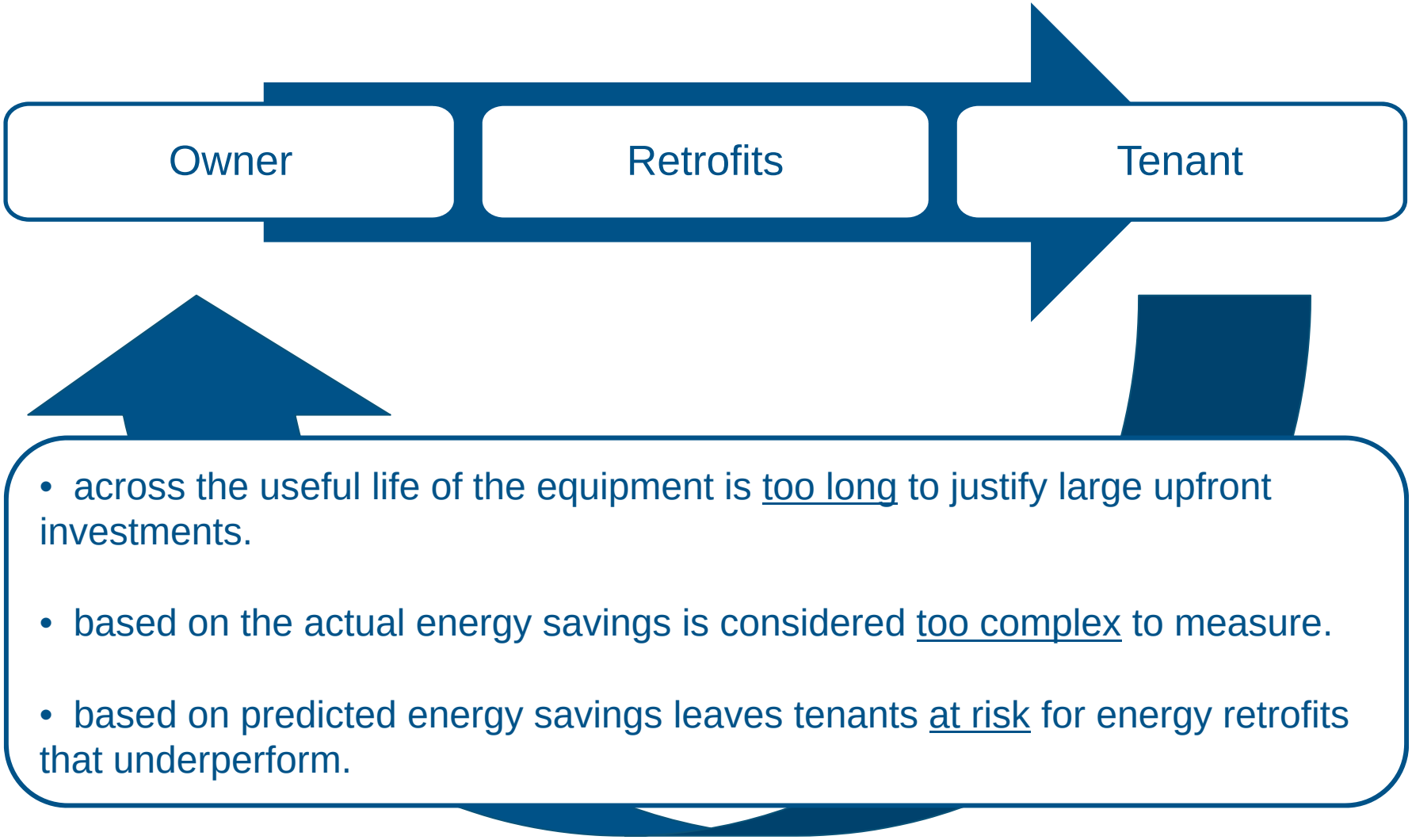


In typical New York City modified gross leases, the savings from energy retrofits are passed through to the tenants, so:

- It is not in the owners' immediate interest to invest capital in improvements.
- Thus energy savings are left on the floor.

More specifically, the split incentive impedes cost recovery.

Owners *can* currently pass through capital expenses. However, recovering the cost:



The split incentive problem is not just a theory.

Commercial Real Estate Owners Inhibited by the Split Incentive Problem

In a NYC Mayor's Office survey of commercial property owners, 60% of respondents stated that the split incentive problem inhibits them from undertaking energy retrofits.

The respondents included firms that own or manage over 310 million square feet of commercial space in NYC.

Prototype lease language was developed.

In 2010, the Mayor's Office assembled a small working group to work for six months on lease language that would address the split incentive problem.

The group, led by an experienced real estate lawyer, was composed of some of the city's largest owners, tenants, management companies, and engineers, including:

Marc Rauch, Esq.

Deutsche Bank

Cushman & Wakefield

Goldman Copeland Associates

Forest City Ratner Companies

Ernst & Young

First New York Partners

JB&B

The lease language needed to address specific issues.

Issue: Owners wanted to base cost recovery on savings predicted by an engineer.

Issue: Tenants did not want to base payback on predicted savings that might not be realized.

Issue: Industry experience showed that actual savings are generally within +/- 20% of predicted savings.

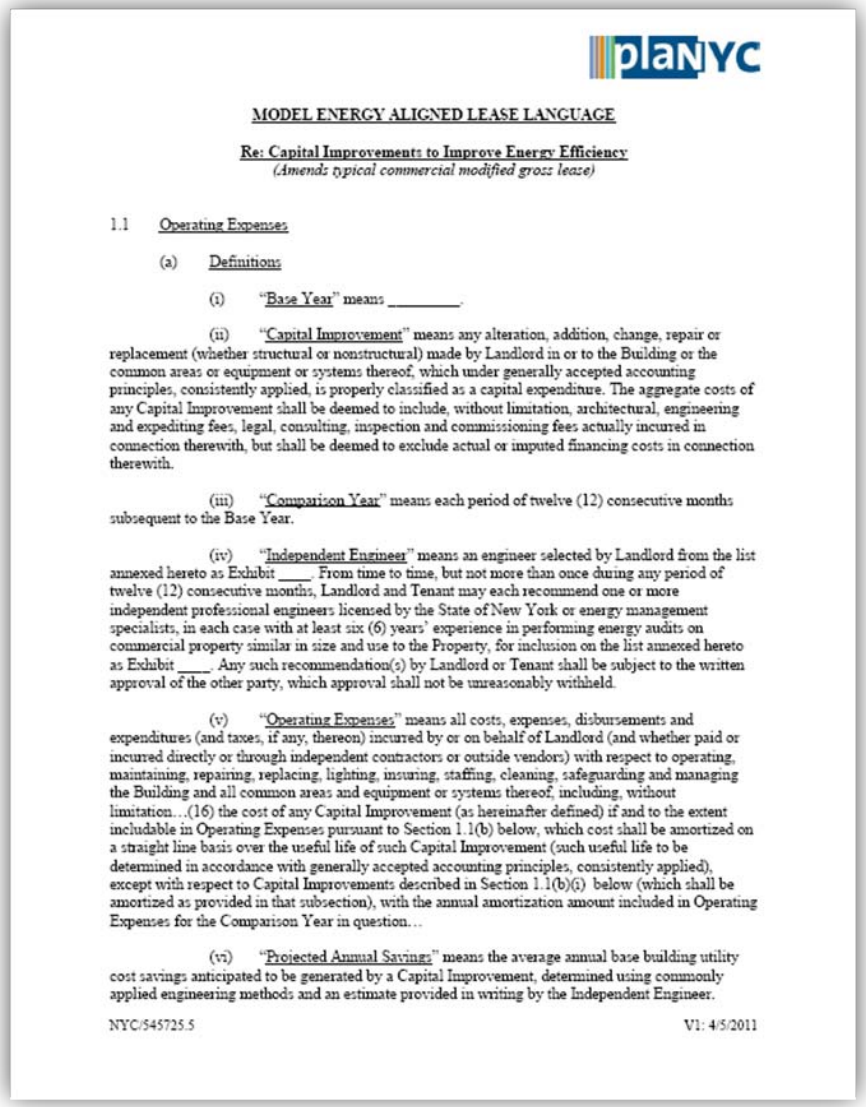
Solution: Base owners' cost recovery on predicted savings as long as tenants are protected against underperformance.

Energy-Aligned Lease

Base owners' cost recovery on predicted savings, but limit owners' capital expense pass-through to 80% of such predicted savings in any given year. This is called the 20% "Performance Buffer."

The resulting lease language is easy to use and can be downloaded from the Web.

- Leasing language and explanation of how the lease works are available at www.nyc.gov/ggbp.



MODEL ENERGY ALIGNED LEASE LANGUAGE

Re: Capital Improvements to Improve Energy Efficiency
(Amends typical commercial modified gross lease)

1.1 Operating Expenses

(a) Definitions

(i) "Base Year" means _____.

(ii) "Capital Improvement" means any alteration, addition, change, repair or replacement (whether structural or nonstructural) made by Landlord in or to the Building or the common areas or equipment or systems thereof, which under generally accepted accounting principles, consistently applied, is properly classified as a capital expenditure. The aggregate costs of any Capital Improvement shall be deemed to include, without limitation, architectural, engineering and expediting fees, legal, consulting, inspection and commissioning fees actually incurred in connection therewith, but shall be deemed to exclude actual or imputed financing costs in connection therewith.

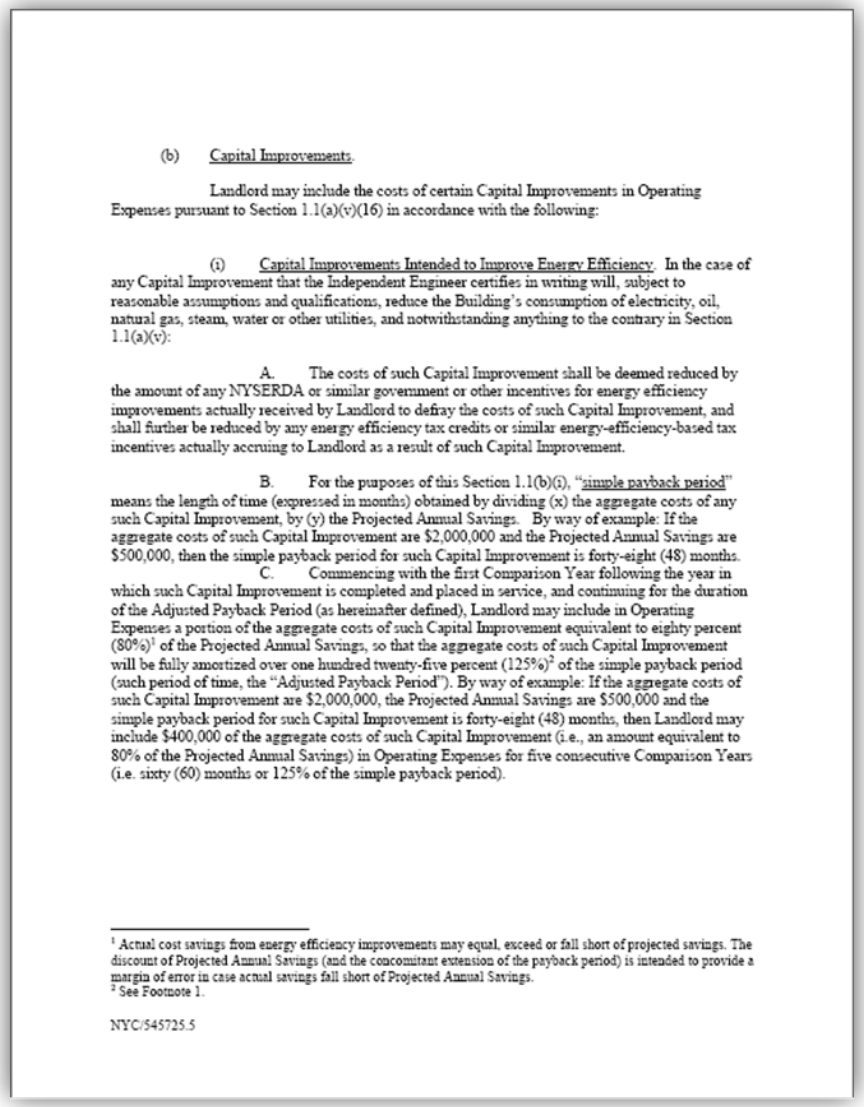
(iii) "Comparison Year" means each period of twelve (12) consecutive months subsequent to the Base Year.

(iv) "Independent Engineer" means an engineer selected by Landlord from the list annexed hereto as Exhibit ____. From time to time, but not more than once during any period of twelve (12) consecutive months, Landlord and Tenant may each recommend one or more independent professional engineers licensed by the State of New York or energy management specialists, in each case with at least six (6) years' experience in performing energy audits on commercial property similar in size and use to the Property, for inclusion on the list annexed hereto as Exhibit ____. Any such recommendation(s) by Landlord or Tenant shall be subject to the written approval of the other party, which approval shall not be unreasonably withheld.

(v) "Operating Expenses" means all costs, expenses, disbursements and expenditures (and taxes, if any, thereon) incurred by or on behalf of Landlord (and whether paid or incurred directly or through independent contractors or outside vendors) with respect to operating, maintaining, repairing, replacing, lighting, insuring, staffing, cleaning, safeguarding and managing the Building and all common areas and equipment or systems thereof, including, without limitation…(16) the cost of any Capital Improvement (as hereinafter defined) if and to the extent includable in Operating Expenses pursuant to Section 1.1(b) below, which cost shall be amortized on a straight line basis over the useful life of such Capital Improvement (such useful life to be determined in accordance with generally accepted accounting principles, consistently applied), except with respect to Capital Improvements described in Section 1.1(b)(i) below (which shall be amortized as provided in that subsection), with the annual amortization amount included in Operating Expenses for the Comparison Year in question…

(vi) "Projected Annual Savings" means the average annual base building utility cost savings anticipated to be generated by a Capital Improvement, determined using commonly applied engineering methods and an estimate provided in writing by the Independent Engineer.

NYC/545725.5 V1: 4/5/2011



(b) Capital Improvements.

Landlord may include the costs of certain Capital Improvements in Operating Expenses pursuant to Section 1.1(a)(v)(16) in accordance with the following:

(i) Capital Improvements Intended to Improve Energy Efficiency. In the case of any Capital Improvement that the Independent Engineer certifies in writing will, subject to reasonable assumptions and qualifications, reduce the Building's consumption of electricity, oil, natural gas, steam, water or other utilities, and notwithstanding anything to the contrary in Section 1.1(a)(v):

A. The costs of such Capital Improvement shall be deemed reduced by the amount of any NYSERDA or similar government or other incentives for energy efficiency improvements actually received by Landlord to defray the costs of such Capital Improvement, and shall further be reduced by any energy efficiency tax credits or similar energy-efficiency-based tax incentives actually accruing to Landlord as a result of such Capital Improvement.

B. For the purposes of this Section 1.1(b)(i), "simple payback period" means the length of time (expressed in months) obtained by dividing (x) the aggregate costs of any such Capital Improvement, by (y) the Projected Annual Savings. By way of example: If the aggregate costs of such Capital Improvement are $2,000,000 and the Projected Annual Savings are $500,000, then the simple payback period for such Capital Improvement is forty-eight (48) months.

C. Commencing with the first Comparison Year following the year in which such Capital Improvement is completed and placed in service, and continuing for the duration of the Adjusted Payback Period (as hereinafter defined), Landlord may include in Operating Expenses a portion of the aggregate costs of such Capital Improvement equivalent to eighty percent (80%)[1] of the Projected Annual Savings, so that the aggregate costs of such Capital Improvement will be fully amortized over one hundred twenty-five percent (125%)[2] of the simple payback period (such period of time, the "Adjusted Payback Period"). By way of example: If the aggregate costs of such Capital Improvement are $2,000,000, the Projected Annual Savings are $500,000 and the simple payback period for such Capital Improvement is forty-eight (48) months, then Landlord may include $400,000 of the aggregate costs of such Capital Improvement (i.e., an amount equivalent to 80% of the Projected Annual Savings) in Operating Expenses for five consecutive Comparison Years (i.e. sixty (60) months or 125% of the simple payback period).

[1] Actual cost savings from energy efficiency improvements may equal, exceed or fall short of projected savings. The discount of Projected Annual Savings (and the concomitant extension of the payback period) is intended to provide a margin of error in case actual savings fall short of Projected Annual Savings.
[2] See Footnote 1.

NYC/545725.5

The lease language includes several key features:

- The predicted savings are determined by an energy specialist agreed upon by both parties.
- Tenants are protected from underperformance by a 20% “Performance Buffer.”
- Owners are paid back in full, but the payback period is extended by 25%.
- Language is applicable for typical modified gross commercial leases and generally for multi-tenant net office leases.

Key Conclusion

Energy retrofits are not a zero sum game: with aligned incentives, both tenants and owners win, because energy retrofits save money.

This lease language does not include the following:

It does not solve the split incentive problem for electricity used by equipment *within* tenant spaces when such spaces are not individually metered or sub-metered.

- To solve this problem, tenants must be individually metered or sub-metered, and be billed accordingly.

- By 2025, all large commercial tenant spaces in NYC must be provided with meters or sub-meters under Local Law 88.

A financial model was developed to demonstrate how the lease language impacts the financial picture.

The Mayor's Office created a financial model to see how energy efficiency dollars would flow in high, low and expected retrofit performance scenarios based on key input variables*, such as:

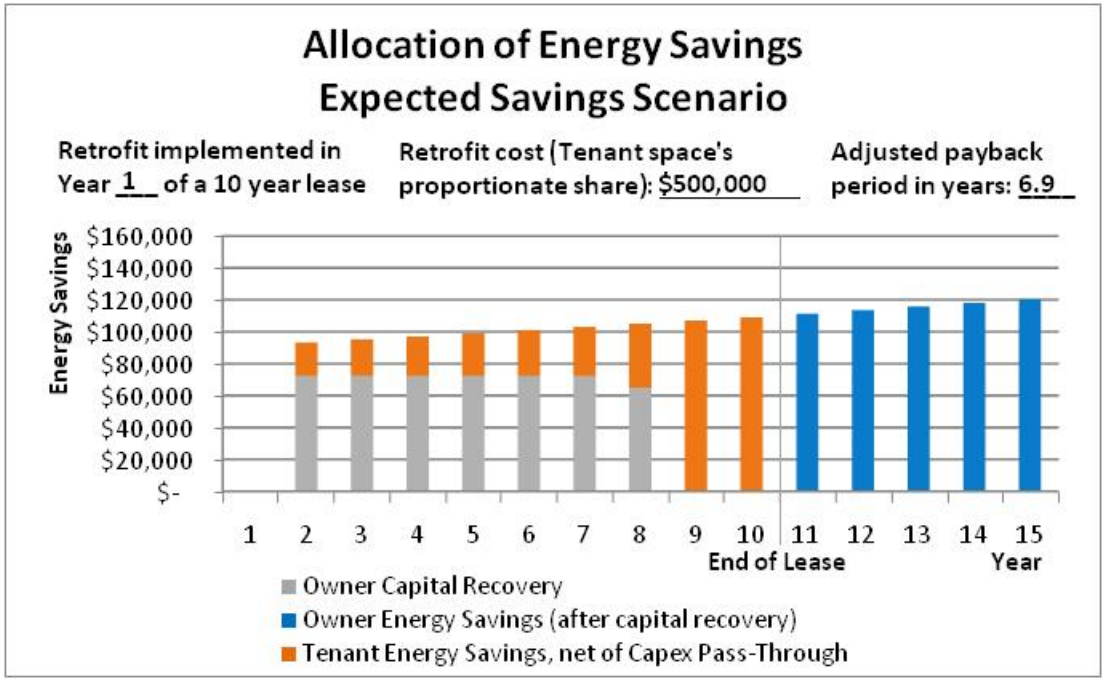
- Overall rent
- Operating expenses / escalation rate
- Predicted energy savings
- Performance buffer percentage

*All inputs and assumptions shown in this table (except gross square footage, year of implementation and retrofit cost per square foot, and projected energy savings) provide the basis for the charts that follow.

INPUTS & ASSUMPTIONS	
Tenant lease info	
Gross square footage	200,000
Lease term (yrs)	10
Lease rent psf	$ 60.00
OpEx base year psf	$ 15.00
OpEx base year - non energy	$ 13.00
OpEx base year - energy	$ 2.00
OpEx projected escalation % - non energy	3.00%
OpEx projected escalation % - energy	3.00%
EE measures	
Lease year during which EE measures are implemented	1
First Comparison Year after implementation	2
Retrofit cost psf	$ 2.50
Retrofit cost (tenant space's proportionate share)	$ 500,000
Annual energy savings psf	
Predicted energy savings (%, bundled)	22%
Predicted energy savings psf (in dollars)	$ 0.45
Predicted simple payback period (yrs, bundled)	5.5
Performance Buffer	20%
Adjusted Payback Period (reflecting Performance Buffer)	6.9
Range of deviation from predicted energy savings	20%
Savings in Under-Performing scenario	18%
Savings in Over-Performing scenario	26%
Other	
Discount rate (NPV)	5.00%
Annual % degradation of energy savings	1.00%
KEY	
Input	
Fixed	
Calculated	

The model shows savings, how the money flows, and energy savings NPV.*

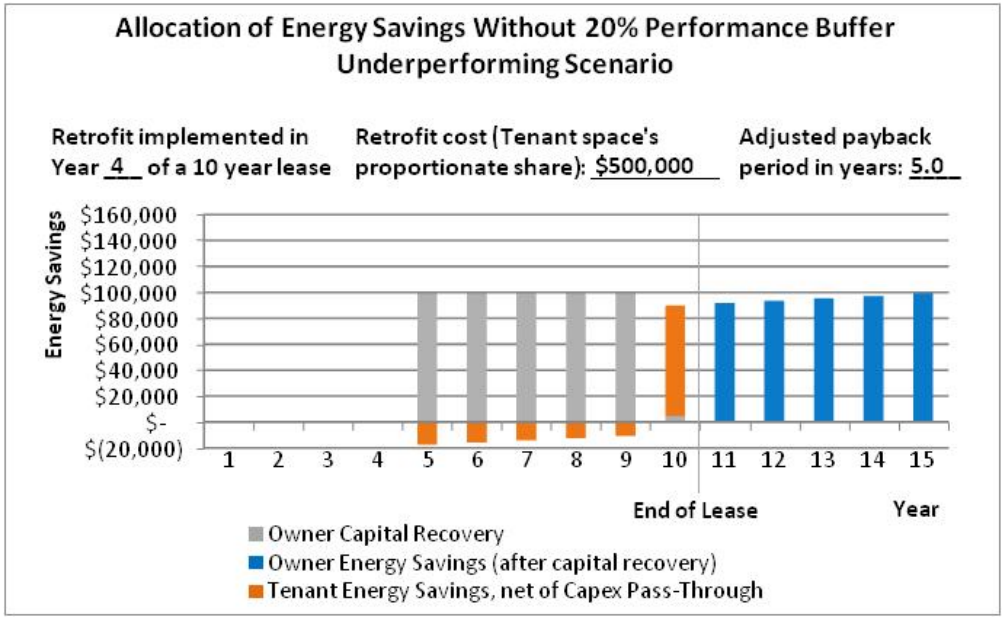
OUTPUT – NPV/GRAPHS

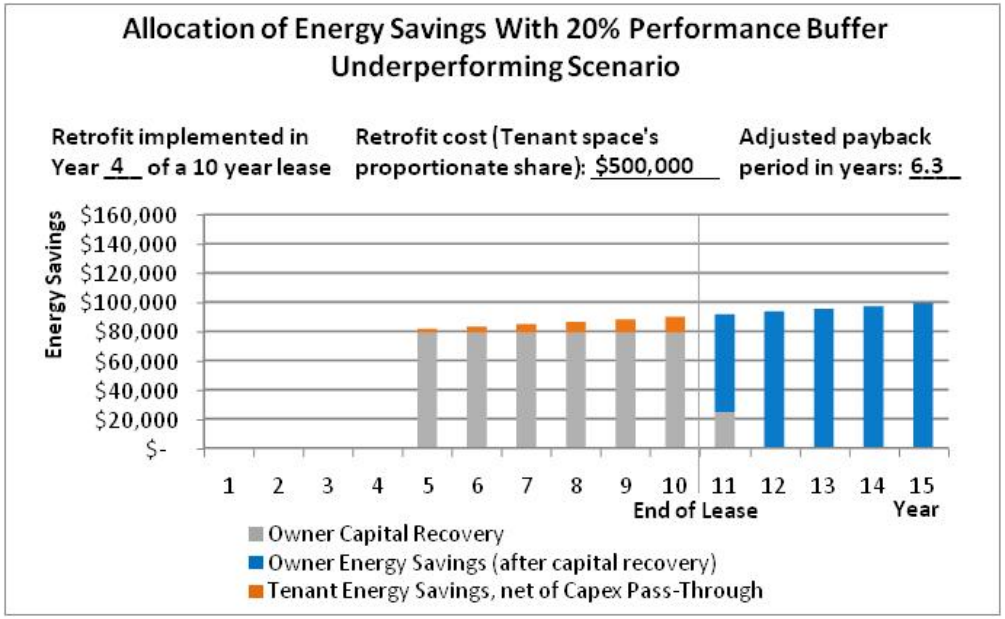


The Allocation of Energy Savings graph shows how the Owner is paid back and how much savings are realized each year for Tenant and Owner.

*The model includes 3 scenarios for each transaction: (i) retrofit performs in line with projected savings; (ii) retrofit under-performs projected savings by an adjusted %; and (iii) retrofit over-performs projected savings by an adjusted %.

The performance buffer reduces Tenant's downside risk.*





If the retrofit underperforms by 20%:

Without the performance buffer, the tenant pays an additional modest amount for energy in the early years, still saving in Year 10.

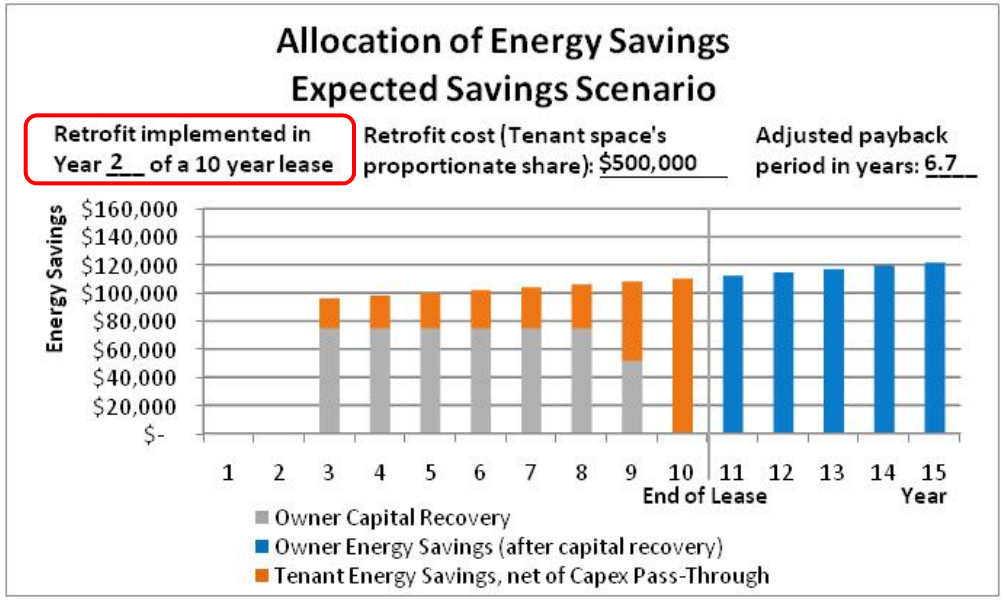
Tenant NPV = $1,258

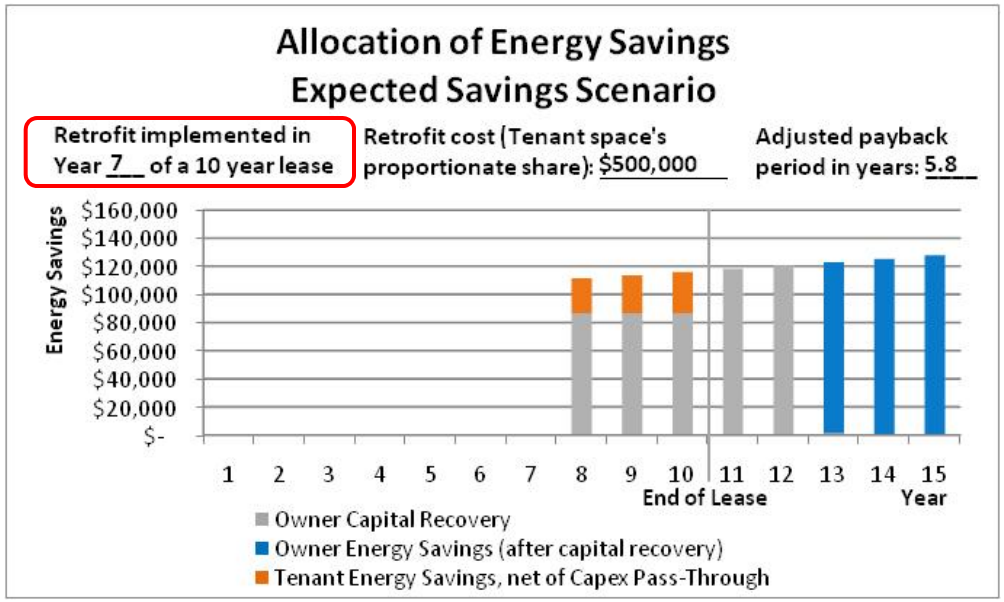
With the performance buffer, the tenant benefits from the beginning of the retrofit installation.

Tenant NPV = $24,920

*Assumptions include 200,000 gross square footage, retrofit per square foot cost of $2.50, and projected energy savings of 22%.

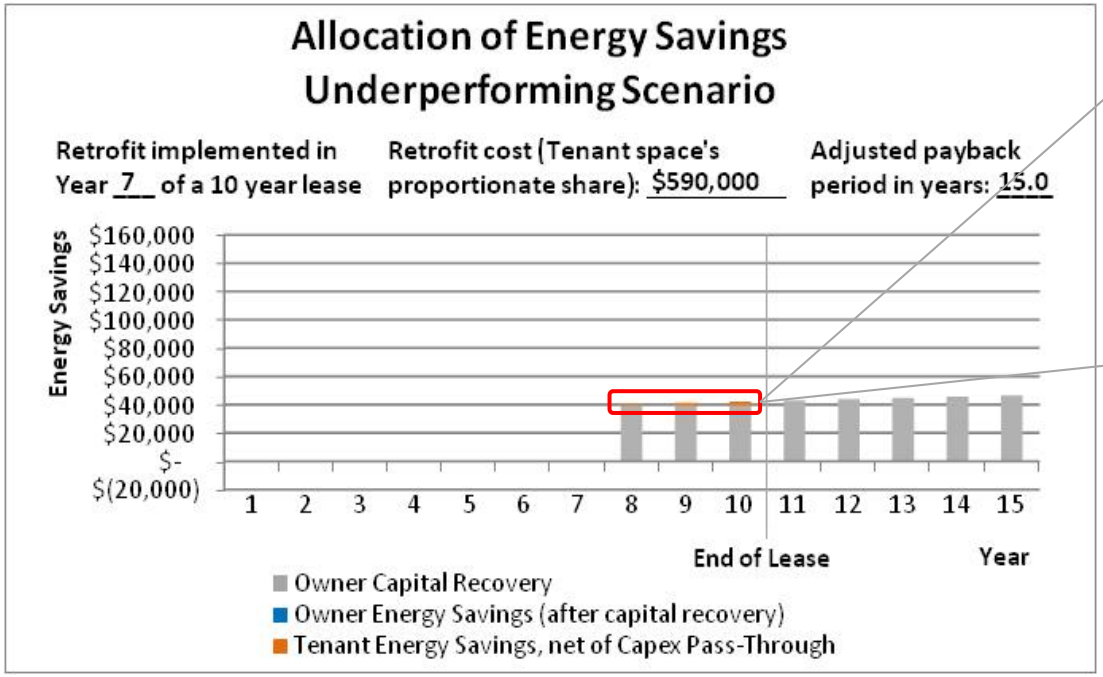
Tenant realizes net savings regardless of when the retrofit occurs – even late in the lease.*

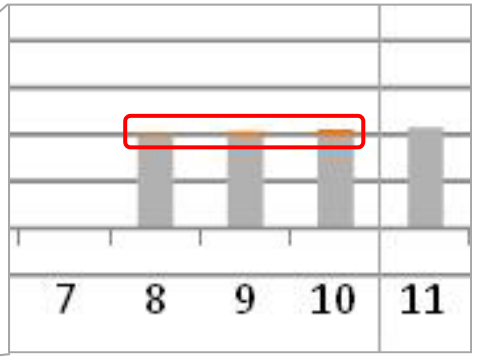




*Assumptions include 200,000 gross square footage, retrofit per square foot cost of $2.50, and projected energy savings of 22%.

Even in the Trifecta (Long pay-back period, late in lease, underperformance by 20%), the tenant stands to gain.*





Tenant NPV = $5,414

*Assumptions include 200,000 gross square footage, retrofit per square foot cost of $2.95 and projected energy savings of 10%.

- Even with a 15 year pay back retrofit occurring in Year 7 of a ten-year lease and underperformance by 20%, the tenant still realizes positive NPV.

- Long pay-back retrofits can still benefit tenants, and tenants can be protected from down-side risk.

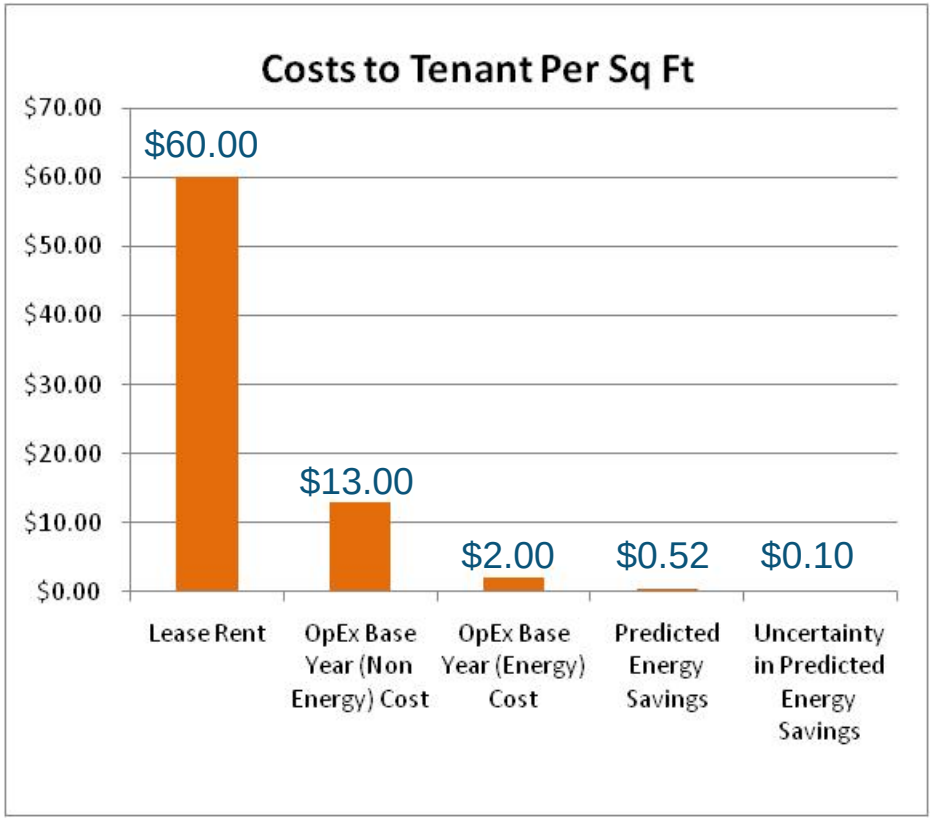
Financial risk to tenant is extremely low.

Example: a retrofit costing $2 per square foot for a 200,000 square foot lease, with 25% predicted energy savings.

Downside risk is approximately 20% of predicted savings, based on industry experience.

The cost associated with downside risk is diminutive compared to total rent and operating expenses.

Uncertainty in predicted energy savings is less than 1/5th of 1 percent of Lease Rent ($0.10 < $0.12).



This language has been used at 7 WTC and is broadly endorsed.

On April 5, 2011, Silverstein Properties and WilmerHale signed a lease modeled after the energy-aligned lease for 210,000 sq ft. of space in 7 WTC. A second lease was signed by MSCI Inc. on September 19, 2011.

The City of New York will use the language whenever NYC is a tenant.

“REBNY… will be recommending this language to all of our members.”
-Steven Spinola, President, REBNY

Other leading organizations endorsing the language include:

Time Warner Cable

EDF Environmental Defense Fund — Finding the ways that work

HR&A Analyze. Advise. Act.

NRDC

U.S. Green Building Council

nyserda Energy. Innovation. Solutions.

Conclusion: This is not a zero sum game. Both tenants and owners benefit from energy retrofits because money is saved.

- The 20% performance buffer removes down-side risk for tenants under most scenarios.

- Tenants can accrue net savings even if the retrofit occurs late in lease or has a long pay-back period.

- Tenant risk from drastically underperforming retrofit is minimal because retrofit expense is dwarfed by overall rent expense.

Appendix on Commercial Lease Types and Split Incentive

Lease Type	Who Pays Expenses	Who Pays Capital Costs	Split Incentive?
Gross Lease	Owner	Owner	
Modified Gross Lease	Owner and Tenant	Owner	✖
Triple Net Lease	Tenant	Tenant	
Multi-Tenant Office Net Lease	Tenant	Owner	✖