Energy-Aligned Lease Language: Solving the Split Incentive Problem

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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…
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:

- across the useful life of the equipment is *too long* to justify large upfront investments.
- based on the actual energy savings is considered *too complex* to measure.
- based on predicted energy savings leaves tenants *at risk* for energy retrofits that underperform.
The split incentive problem is not just a theory.

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.  
Forest City Ratner Companies

Deutsche Bank  
Ernst & Young

Cushman & Wakefield  
First New York Partners

Goldman Copeland Associates  
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.
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.
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.*

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

- 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.

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

<table>
<thead>
<tr>
<th>Lease Type</th>
<th>Who Pays Expenses</th>
<th>Who Pays Capital Costs</th>
<th>Split Incentive?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Lease</td>
<td>Owner</td>
<td>Owner</td>
<td></td>
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<tr>
<td>Modified Gross Lease</td>
<td>Owner and Tenant</td>
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<tr>
<td>Triple Net Lease</td>
<td>Tenant</td>
<td>Tenant</td>
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<tr>
<td>Multi-Tenant Office Net Lease</td>
<td>Tenant</td>
<td>Owner</td>
<td>✗</td>
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