

Brandywine Realty Trust Overcomes the Split Incentive Barrier and Obtains Tenant Utility Data

Brandywine Realty Trust is one of the largest full-service integrated real estate companies in the nation, with properties across seven states and the District of Columbia. The company strives to be a leader in sustainability and energy efficiency, achieving an Energy Star label at 83 buildings (15.1 million square feet) in 2012.

Brandywine utilizes two components in its lease to drive energy efficiency and data transparency in its managed portfolio. First, the company includes a clause in its standard leases that allows it to pass through the capital costs of efficiency improvements to tenants. Second, Brandywine includes a clause in new and re-negotiated leases that requires tenants to either submit monthly utility data or allows the company to install sub-meters in tenant areas if Brandywine is not already receiving such data. These measures enable the company to track energy usage, implement cost-effective energy efficiency measures, meet energy-saving targets, and save tenants money.

Utilizing Cost Pass-Through Clauses to Overcome the Split Incentive Barrier

To overcome the split incentive barrier to energy efficiency, Brandywine includes a clause in all leases that allows them to charge tenants for measures that result in operational expenditure savings, such as lighting or chiller retrofits, so long as the operational savings are greater than the costs of the efficiency measure.

Brandywine and tenants negotiate the time frame for payments, and the tenant accrues utility saving benefits after the investment is fully paid. This mechanism creates a win-win situation for Brandywine and tenants: tenants benefit from overall savings as a result of the efficiency measure, while Brandywine benefits from improving building assets and maintaining or increasing the value of the building.

A Brandywine five-story multi-tenant 1980s vintage office building in the suburbs of Philadelphia is an example of the company's success with green leasing. As has been its practice since 1992, Brandywine included a cost pass-through clause in the 93,000 square foot building's lease, allowing the cost of a building automation system (BAS) to be passed through to tenants. Analysis of BAS data facilitated HVAC and other equipment upgrades that reduced the building's energy costs by an average of roughly 46%, from about \$3.50/sf to as low as \$1.90/sf (compared to a portfolio-wide average of \$2.63/sf).



Address: 500 North Gulph Road
Owner: Brandywine Realty Trust
Lease type: Full service gross lease with a base rent
Size: 93,000 square feet

What is green leasing?

Green leasing is a general term that refers to any strategy that uses a lease to formalize the responsibilities between tenants and landlords with respect to a building's "green" measures and practices. Also known as energy-aligned leases, high-performance leases, or energy-efficient leases, these leases align the financial and energy incentives of building owners and tenants so they can work together to save money, conserve resources, and ensure the efficient operation of buildings. Green leasing is one tool that can be used to overcome the "split incentive" barrier to energy efficiency in commercial buildings.

What is the split incentive?

The "split incentive" occurs when the party who pays the upfront costs of an efficiency improvement is different from the one who benefits from future energy savings. This is oftentimes the case in standard commercial leases, which lay out how energy costs are divided between tenants and owners in ways that discourage energy savings:

- Under a *gross lease*, for example, utilities are typically included in the rent. As a result, tenants usually have little incentive to save energy in their leased premises because energy costs are paid by the landlord.
- Under a *net lease*, the opposite situation occurs: tenants are responsible for paying their utility bills each month. As a result, building owners have little incentive to invest in efficiency upgrades because tenants are paying the bills. Tenants may not be willing to invest in efficiency upgrades either if their lease term is shorter than the life of the efficiency investment.

To learn more, visit commercialbuildings.energy.gov/alliance



Brandywine's leasing strategy allows landlords to pass the cost of energy efficiency projects to tenants, providing a cost-effective framework for building improvements

Strategies for Success

Step 1: Make the business case

To make the business case for the cost pass-through provision, Brandywine sent a letter to tenants explaining the retrofit and that the result would be a net cost savings. The company used its experience implementing similar retrofits throughout its portfolio to describe how utility savings would be greater than the BAS's costs on a monthly basis. The costs were allocated to tenants based on their square footage (this building was not sub-metered) to guarantee that each tenant was responsible for its fair share of energy costs and savings. Brandywine financed the upfront cost of the retrofit through its capital projects budget. Tenants were not charged up-front for the retrofit; rather, payments are spread out over a period of five years to assure that savings outweigh costs to tenants.

Step 2: Monitor savings and extend repayment period if needed

One tenant was concerned that the retrofit would not pay back in the estimated time period. To address this concern, Brandywine agreed to monitor performance of the equipment and extend the repayment period (lowering monthly payments) if the upgrade underperformed – and thus did not pay for itself as anticipated. Based on one year's observed savings after installation, the facility manager estimates that the payback period for this project will indeed be approximately three years.

Step 3: Address tenant turnover

The lease also addressed concerns regarding tenant turnover and new tenants' responsibilities. If a tenant moves out before the cost of the retrofit is fully paid back, the new tenant simply assumes payback obligations for the duration of the repayment period and continues to enjoy energy savings benefits thereafter.

Driving Energy Efficiency Through Data Transparency Leasing Requirements

Obtaining utility data is one of the first steps in identifying energy-savings measures in a building, so any barrier to data transparency is an impediment to energy efficiency. Many building owners, including Brandywine, have had difficulty collecting their building's energy data, especially in multi-tenant buildings. Sometimes these buildings are not sub-metered, making it difficult to identify opportunities for energy efficiency improvement. Even when there are sub-meters, it is frequently difficult for the building owner to gain access to the utility bills. If tenants pay for utility bills directly, then the utility will usually require a building owner to obtain permission from tenants in order to share this information with the building owner. The landlord can ask tenants individually for utility bill information, but it may be difficult to find the person who has access to this data. Once the right person is identified, it can be cumbersome for them to scan and mail a utility bill to the building owner every month if there is not a system for automated collection. Some utilities provided automated utility data access, but this is not available everywhere.

Brandywine has begun to interface with regional utilities to discuss ways to improve building data access and to implement strategies that overcome this barrier at buildings with limited data availability. The company is including a clause in its lease that either requires the tenant to provide monthly data or allows Brandywine to install a utility meter in their name in the tenant space when the tenant has a high degree of consumption. At the time of publication, Brandywine had incorporated the clause into all amended leases and new leases for 2012, covering roughly 1.8 million square feet of its portfolio. Brandywine has experienced very little tenant resistance to the requirement, with only occasional push-back on requests to install a sub-meters.

CBEA partnered with the Institute for Market Transformation (IMT) and the Energy Efficient Buildings Hub (EEB Hub) to write and develop this case study. IMT is a non-profit Organization promoting energy efficiency, green building, and environmental protection in the United States. EEB Hub is an organization, funded by the Department of Energy with a unique dual mission of improving energy efficiency in buildings and promoting regional economic growth and job creation.



Addressing the Remaining Challenges

Brandywine has found that cost pass-through lease clauses eliminate the split incentive barrier in certain buildings, and that addressing data availability in the lease can help avoid data access problems later on. While these measures have helped Brandywine improve its properties' energy efficiency, they note that lease clauses alone are not a panacea for energy efficiency challenges. Other barriers to energy efficiency remain, such as a limited ability to engage tenants, lack of information on the costs and benefits of energy efficiency, and access to capital to cover up-front costs. Smaller buildings also remain a challenge for Brandywine. Buildings that are most likely to implement this leasing clause for an energy efficiency improvement are larger buildings for which an energy efficiency investment represents larger absolute savings. Although challenges remain, Brandywine's leasing efforts have helped put them on a path to greater energy efficiency: a path that others can benefit by following.

Example Lease Language

Brandywine's cost pass-through provision for retrofits states:

“Capital expenditures and capital repairs and replacements shall be included as Operating Expenses provided such capital repairs or replacements were necessitated by a change in Law occurring after the date of this Lease or were intended to have cost saving benefits over the Term and amortized costs of same over the useful life of the improvement in accordance with generally accepted accounting principles or with respect to cost savings, over the payback period of such improvement.”

To gain access to tenant utility data and to install sub-meters in tenant spaces, the lease states:

“Landlord is hereby authorized to request and obtain, on behalf of Tenant, Tenant's electric consumption data from the applicable utility provider.”

“Notwithstanding anything herein to the contrary, if Landlord reasonably determines that Tenant's use of electricity is excessive, Tenant agrees to pay for the installation of a separate electric meter to measure electrical usage in excess of normal office use and to pay Landlord for all such excess electricity registered in such submeter.”

To address Saturday HVAC use, the lease states:

“Landlord shall provide: (i) Premises heat and air-conditioning (“HVAC”) service in the respective seasons during the hours of 8:00 a.m. to 6:00 p.m. on weekdays and on Saturdays from 9:00 a.m. to 1:00 p.m., excluding Building holidays (“Business Hours”); provided, however, HVAC service to the Premises on Saturdays shall be provided only upon Tenant's prior written request to Landlord; (ii) Premises electricity for lighting and office equipment typically found in class A office buildings in the market in which the Project is located; (iii) water and sewer service to the extent typically provided by landlords of class A office buildings in the market in which the Project is located; and (iv) cleaning services consistent with the cleaning standards for class A office buildings in the market in which the Project is located.”

Example Tenant Letter

Brandywine's tenant outreach begins with a letter explaining the proposed retrofit, its anticipated savings, and each tenant's share of the costs:

Dear [tenant],

We intend to replace the Energy Management System that controls all the mechanical equipment in the building. These improvements include the AC Units on the roof, the VAV boxes, and the electric perimeter heat in your suite. The estimated upfront cost to do this work is approximately \$180,000. However it is expected these improvements will reduce the overall electrical expenses for the property by approximately \$60,000 per year or \$0.65 psf and result in a direct savings to tenants on a pro-rata share basis.

Rather than wait for the Landlord to be 100% reimbursed for the cost of these improvements before passing the savings to the tenant base, Brandywine has elected to apply only \$36,000 (\$0.39 psf per year) to all tenants on a pro-rata share basis for the next five years in an effort to help the tenants realize immediate savings. This expense allocation will last for five years beginning January 1, 2011 and end on December 15, 2015. After December 15, 2015, each business will benefit from the full \$0.65 psf reduction in electrical expense.

Please let me know if you have any questions or concerns regarding this project.