

COMMERCIAL PARTNER

THE TOWER COMPANIES



Photography by Ron Blunt

Implementation Model:
Leveraging Green Leases to
Reduce Energy and Water
use

ORGANIZATION TYPE

Commercial Office and Residential Real Estate

BARRIER

- Limited access to energy use data in commercial leased space.
- Limited control over energy use and plug load within leased space

SOLUTION

Inclusion of green appendix in standard lease agreement offered to new and renewing tenants.

OUTCOME

- More complete portfolio-wide energy benchmarking thanks to tenant energy use reporting
- Reduced energy and water use in tenant spaces across commercial portfolio

Overview

The Tower Companies (“Tower”) owns and manages over 3 million square feet of commercial and residential building space in the Washington DC area. Like most landlords, Tower does not have control over energy and water usage in tenant office spaces. However, Tower can influence usage through requirements on the design of tenant space.

Building codes do not typically reflect the significant recent improvements to lighting technology, office equipment, and plumbing fixtures. Tower raises the bar on lighting and water efficiency through lease

language, requiring a 16% improvement over the local lighting codes and a 30% improvement in plumbing fixture efficiency over current building performance. In addition, the green lease also requires all new and replaced ENERGY STAR® qualified equipment to be ENERGY STAR certified.

The Tower Companies' Playbook



Policies

Tower's Green Lease Exhibit B-4 and associated Appendices are included without exception in negotiations for a new lease and existing lease renewals. Individual clauses within the lease are sometimes negotiated based upon tenant needs. However, the clauses that relate to energy use are only waived in cases where an existing tenant is not completing any energy-related renovations. Tower does require these tenants to improve energy efficiency if they renovate their space in the future. The lease requires that the engineer of record for tenant fit-outs verify the lighting design meets the specified lighting requirements. Tenants are required to provide cut sheets for all standard office equipment as part of the documentation package provided to the landlord at the end of any tenant build-out.



Process

Inspired by LEED

Tower employs the LEED® rating systems as tools to improve building operations and efficiency. The LEED for Commercial Interiors (LEED CI) rating system guides sustainability requirements for tenant spaces. The LEED for Existing Buildings Operations and Maintenance (LEED O+M) rating system informs best practices for the ongoing operation of Tower properties. The green clauses included in Tower leases also track to specific LEED credit requirements or ENERGY STAR Portfolio Manager benchmarking requirements. When a tenant wants to certify their space, Tower provides documentation and support to assist them.

Energy Use Reduction Clauses

The Tower Companies green lease language promotes tenant energy savings through a variety of methods including:

Fundamental Commissioning

Tenants are required to engage a commissioning authority to confirm that the installed mechanical and lighting systems are functioning as designed.

Lighting Power

In accordance with the LEED for Commercial Interiors (LEED CI) rating system, tenants are required to reduce connected lighting power density 16% below that allowed by ANSI/ASHRAE/IESNA Standard 90.1-2007. Most tenants are able to meet this requirement by specifying high output T5 lamp in ceiling fixtures and supplying each employee with high-efficiency task lighting.

Motion and Occupancy Sensors

Tower requires motion sensors to control lighting in all private offices, storage rooms, closets and computer closets, as well as conference rooms and open spaces that can be zoned. Task lighting and undercabinet lighting must also be connected to motion sensors or timers.

Space Heaters

Space heaters are specifically prohibited in Tower leases.

Energy Benchmarking Clauses

The Tower Companies began using EPA's ENERGY STAR Portfolio Manager for all properties in 2007. Tower has incorporated information requirements needed for Energy Star reporting into the green lease including occupancy and data on any submetered equipment. This has also allowed the company to comply with Washington DC energy benchmarking requirements without any additional data collection. Specifically, Tower requires tenants to submeter all server rooms and provide the following information:

1. The number of full time occupants in the space
2. The square footage of all tenant server rooms and information on supplemental HVAC equipment for server rooms.

Water Use Reduction Clauses

The Tower lease requires tenants to install water fixtures that are 30% more efficient than the calculated baseline for the building. In most cases, EPA WaterSense certified fixtures meet this requirement.

Outreach



Tower created the green lease and worked with their leasing staff and brokers to educate them about the terms and conditions included. One challenge was the perception that the costs of the tenant space build-out would be significantly higher. Each requirement was reviewed with the leasing and broker team to explain that the energy-related requirements are low or no cost items.

The Tower sustainability team met with their leasing teams and brokers regularly as questions were raised in the beginning, and as individual leases were negotiated the sustainability team would participate in lease negotiations. Once leases were signed, the team often held conference calls with the design teams to discuss the intent of the lease terms and their impact to the design. As the LEED rating systems become more commonplace in the market, the Tower sustainability team has received fewer questions regarding the associated lease language.

Tools and Resources



- [Green Lease Exhibit B-4](#)
- [Table noting LEED credits under both the LEED CI and LEED O+M ratings systems which convey to tenants](#)

Measuring Success



Tower measures the success of the green lease initiative in three ways:

1. Number of green leases signed and square footage of building portfolio covered under green leases and
2. Energy savings associated with tenant upgrades required by the green lease
3. Square footage of portfolio which can be benchmarked in ENERGYSTAR Portfolio Manager



Outcomes

The Tower Companies first introduced the green lease in 2009 and the first signed lease was executed in August of that same year. Since 2009, 100% of all new and renewed office leases have included the green lease clauses, representing nearly 30% of the square footage of the Tower building portfolio and over 60 signed leases and lease extensions. Of these 60 leases, 80% involved construction renovations requiring implementation of the green lease. This represents approximately 25% of Tower's office portfolio or approximately 300,000 square feet.

Since 2009, the green lease requirements have contributed to energy savings of approximately 250,000 kWh or \$35,000¹ compared to local building code lighting requirements of one Watt/SF. Considered over the 10 year life of these leases, the savings will represent approximately 1,350,000 kWh or \$190,000. If all Tower office spaces were converted to green leases, estimated savings over the 10 year life of the leases would be at least 6,000,000 kWh and \$840,000.

These estimates are conservative given that actual tenant energy reductions are often greater than those required by the lease when outdated lighting and equipment, which is significantly less efficient than allowed by current code, is replaced.

¹ Based on energy costs of \$.14/ kWh