

# Greening Leased Spaces: Opportunities and Challenges

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## ABSTRACT

In market research conducted by the authors, tenants, brokers and owners of leased commercial office space identified the following as key barriers to expanding green building within the commercial sector: first cost, split incentives, lack of common definition for green and sustainable, lease type diversity, availability of qualified properties, and lack of communication between tenants and landlords. Developed with an advisory board that included California Department of General Services, JP Morgan, Bank of America, CB Richard Ellis, Thomas Properties, Southern California Gas, and the California Energy Commission, the Green Leasing Toolkit facilitates commercial green building by providing a comprehensive solution to the challenges created by the standard commercial leasing process. Despite these barriers, leased space can be greened within current lease structures – the principle requirements are to recognize that greening space requires embedding green considerations throughout the leasing process and establishing open communication between landlord and tenant. The Toolkit integrates energy, water, waste and other sustainability goals throughout the commercial leasing process, and enables landlord and tenant to align their green building objectives.

## Introduction

Commercial office space is a hard to reach sector for green building: in California, less than 6% of the approximately 900 million square feet (MSF) of Class A and B<sup>1</sup> office space is Energy Star or LEED certified (CoStar 2007).<sup>2</sup> With leased spaces accounting for 90%, or 810 MSF, of the commercial office market, bringing green building into the mainstream will be closely linked with the greening of leased space.

With advances in technology, increased costs for basic services, and growth in awareness, the number of and demand for green office buildings have grown rapidly. Yet green buildings still represent a small fraction of the total office building stock. Leased space presents a unique set of challenges for advancing the market adoption of green building practices.

The California Sustainability Alliance, a project of Navigant Consulting funded by Southern California Gas Co., undertook the development of the Green Leasing Toolkit in order to precipitate market transformation in this important market segment. The Toolkit was developed with an advisory board that included representatives from California Department of General Services, JP Morgan, Bank of America, CB Richard Ellis, Thomas Properties, Southern California Gas, and the California Energy Commission. The Toolkit is being piloted in California and results from these pilots will be used to refine and expand the various tools. While

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<sup>1</sup> Classes A, B, and C are used to designate the quality and amenities associated with the space. Class A refers to very high quality space in good location, with lobby and proximate amenities. Class B is a notch lower quality space, with class C representing the lowest quality (and lowest lease rates) space.

<sup>2</sup> Based on data for the Sacramento, San Francisco Bay Area, San Diego, Los Angeles, and Orange County markets.

the focus of green leasing activity to date has been California, the tools, ideas and lesson learned can be applied throughout the nation.

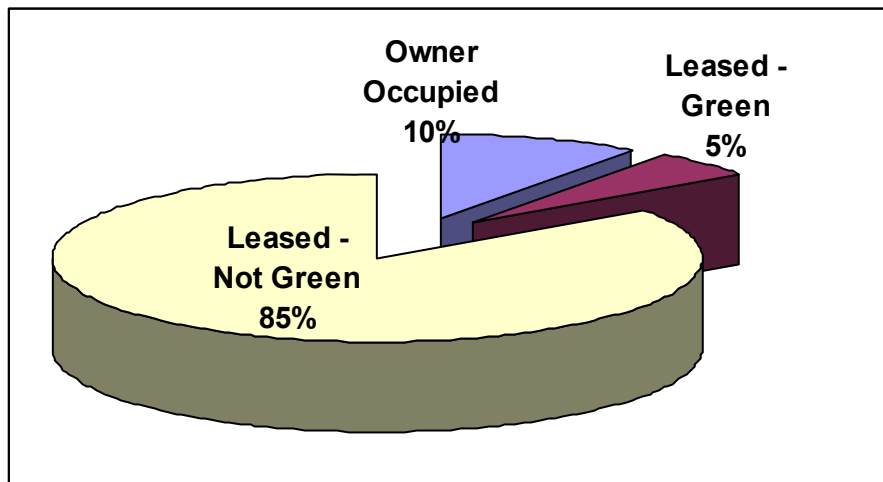
## Market Assessment

### Market Growth & Drivers

The market for green commercial office space in California is characterized by low but increasing availability, and rising demand. Market drivers include reduced implementation costs, increased savings, improving certification standards, rising public awareness and government policy.

Of the 900 million square feet (MSF) of Class A and B commercial office space available throughout California, just 6% is certified through the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) and/or the U.S. Environmental Protection Agency's Energy Star programs (Figure 1).

**Figure 1. Leased Composition of California Commercial Office Buildings**



CoStar, 2007. Based on a survey of the Sacramento, San Francisco Bay Area, San Diego, Los Angeles, and Orange County markets.

In California, leased office space is the key target area for market growth in green building. There is an average annual lease turnover of 45 MSF and a total stock of approximately 900 MSF throughout the state. The most significant concentration of leased commercial space is occupied by the largest tenants, defined by those with at least 50,000 square feet of space, which account for approximately 50% of total commercial stock.

The rate of construction of green buildings within the commercial sector has accelerated. According to global real estate investment company RREEF, the number of LEED projects has been growing over the past 3 years at a compound annual growth rate of 50-100 percent (Nelson 2007). In the period 2006-2007, the multi-tenant commercial sector has grown to represent 13.8 percent of LEED buildings, up from just 1 percent of all LEED buildings during the years 2000-2003 (Nelson 2007). McGraw Hill Construction predicts that the commercial office sector will experience 49 percent growth in green building in 2008 (USGBC 2008).

These growth trends are particularly true within the market for Class A office space. Among Class A tenants, green buildings offer a tangible way to demonstrate corporate values while maintaining a competitive edge. Within a few years, green building is likely to become a compulsory component of what defines Class A space (Nelson 2007). The impact of the market shift toward green building at the Class A level will trickle down to buildings in the Class B level and then to Class C spaces.

The movement towards green commercial space has many underlying drivers including increasingly affordable first costs, savings improvements from higher energy and water costs, steadily improving certification standards, and rising public awareness of environmental issues such as climate change. First costs for more efficient technology will continue to come down as these technologies improve and become more widely adopted. Rising energy costs increase the relative savings from efficiency-based technology. Although certification standards, such as LEED, currently come with a high price tag, ongoing efforts to streamline the processes will make certification more accessible for smaller-scale projects and/or smaller-scale building developers and owners. Rising public awareness of climate change, energy security concerns, and the need for sustainable resource consumption will continue to provide momentum to invest in green building.

Government policy is also a driver. In California, Governor Schwarzenegger set the tone for the State with Executive Order S-20-04 (CA July, 2004), also known as the “Green Building Initiative”, which called for a 20% reduction in electricity use in State buildings by 2015 (California Executive Order S-02-04). As directed by the Executive Order, LEED certification is also being pursued for State buildings that meet the following criteria:

1. new buildings of greater than 10,000 square feet must be at least LEED-Silver;
2. new buildings of less than 10,000 square feet must meet LEED criteria but do not require certification; and
3. existing buildings of greater than 50,000 square feet must be LEED certified.

At the Federal level, the Energy Policy Act of 2005 established tax deductions which are available for energy-efficient commercial buildings and the Energy Independence and Security Act of 2007 set national goals for zero-net-energy new commercial buildings (The White House, 2005; CRS 2007). Through the Commercial Buildings Initiative, a new RD&D program to be administered by the Department of Energy, the Energy Independence and Security Act of 2007 establishes a target of zero-net-energy for all new commercial buildings by the year 2030 (CRS 2007).

## **Barriers**

Barriers to advancing green building within the commercial buildings sector include: uncompetitive first costs, split incentives, defining green, lease type diversity, limited availability of qualified properties, and lack of communication between tenants and landlords.

High initial costs, known as first costs, have long been a barrier to designing and retrofitting for more sustainable buildings, even when lifecycle costing for green technologies has proven them more economical than conventional options. As the first cost gap continues to narrow between green and non-green techniques, the case for green building has strengthened considerably. Several recent studies have demonstrated that the average cost for green buildings

is not significantly different than that for conventional construction (Mathiesson & Morris 2007; BDC 2006; LEED 2005). While the first costs for green space may be acceptable for new construction, any improvements to existing space require capital expenditures. Even with short paybacks, first costs remain a barrier in existing spaces, particularly given the split incentives. The business case for “going green” needs to be articulated more convincingly to a broader audience so that the issue of first cost can be addressed within the context of the long-term benefits of green design.

Split incentives, where incentives for landlords and tenants do not align, remain an important barrier to the widespread uptake of green building practices across the commercial building industry. Leasing is the primary mechanism through which split incentives are created and perpetuated; landlords are either unwilling to cover upfront costs if the tenants alone benefit from the improvements and/or tenants may not be able to modify the property due to the constraints of their lease. A closely related barrier is the diversity of lease types. The typical real-estate manager manages dozens of leases with a wide range of lease structures under strict time constraints. Since each lease structure results in a different balance of operational and maintenance responsibility between landlord and tenant, the issues of responsibilities for investments and operating costs have to be resolved differently for each type of lease. Such managers are concerned that green considerations will complicate the leasing process.

Defining what is meant by “green” or “sustainable” has proven challenging for many industries, and the building industry is no exception. The lack of established benchmarks and criteria for assessing “green” has led to limited ability for tenants to specify green requirements or for landlords to feature green space. Additionally, the two most well known national programs, LEED and Energy Star, have important limitations: LEED takes a very broad perspective to green while Energy Star focuses exclusively on energy efficiency.<sup>3</sup> As a result, buildings that may fall short of meeting LEED specifications are left without a recognized mechanism to measure, account and validate their efforts despite having sustainability initiatives that extend beyond energy efficiency, the focus of the Energy Star program. Furthermore, current certification programs have not been designed to accommodate incremental greening, or the process of working towards certification during the normal course of business (i.e. equipment replacements and scheduled capital improvements). The CoStar database ([www.costar.com](http://www.costar.com)), a resource used extensively by real estate professionals to identify target properties for clients, provides perfect illustration: LEED and Energy Star certification are the only searchable green criteria available in the CoStar database. Although some buildings may be in the process of greening their space, or landlords could be open to initiating the process with willing tenants, no established method of communicating these ideas is currently available.

In a broader sense, communication between landlords, tenants and brokers around green building ideas is not optimal. Landlords and tenants do not have a standard method for communicating their real estate assets and needs, and as a result, many are unable to realize the financial benefits of green buildings. Despite expected increases in demand and supply of green office space, tenants are concerned that exclusive consideration of green buildings will result in “no competitive offers” while landlords fear that there will be “no market” for their green buildings. When it comes to articulating the desire to lease a green building or the willingness to build or retrofit green, both landlords and tenants have failed to communicate effectively. This failure has its roots in established leasing processes, in contract arrangements (such as

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<sup>3</sup> The EPA announced on March 3, 2008 that the Energy Star program would be expanded to include water efficiency as it relates to energy systems.

covenants<sup>4</sup>- managed by corporate real estate teams), and in the absence of a specific benchmark or set of criteria for green building.

## **Solution: Green Leasing Toolkit**

The Green Leasing Toolkit is based on the dual premise that green building principles can be integrated into the standard leasing process provided that the philosophy is adopted throughout the entire leasing process and that open communication exists between landlord and tenant. Many of the issues identified as barriers to advancing commercial green building can be addressed through the leasing process provided that adequate communication exists.

The Green Leasing Toolkit integrates tenant and landlord sustainability objectives within the framework of the entire leasing process: service provider selection; needs analysis and communication; request for proposal (RFP) and letter of intent (LOI) drafting; site due diligence; site selection; and the negotiation and drafting of realistic and enforceable lease language.

These tools support tenants and landlords in educating their organizations, developing their own green leasing policies and requirements, communicating policies and requirements to the market, measuring and comparing the green building attributes of multiple buildings, and developing specific lease language provisions.

The toolkit is available at [www.sustainca.org/content/green\\_leases\\_toolkit](http://www.sustainca.org/content/green_leases_toolkit).

## **Description of Tools**

### **Green Policy Document: Linking Sustainability Goals to Leasing**

- Definition: A policy statement in which an organization defines its intended sustainability goals as they relate to leased facilities. Key focus areas are energy and water use, waste recycling, and alternative transportation.
- Application: The sample green policy statement should be introduced to the various parties engaged in the leasing process, such as brokers, architects, landlords, etc. The statement communicates to both employees and outside vendors the sustainability practices the company expects in its office environment.

### **Needs Analysis: Communicating Green Needs**

- Definition: A process in which an organization meets with its broker and establishes the desired attributes of the leased space such as budget, location, image, services, and amenities.
- Application: Introduced during the needs analysis with the tenant's broker.

### **Request for Proposal: Establishing Green Initiatives Early**

- Definition: Once a short list of sites has been established, it is customary that the tenant will issue an RFP through its broker representative. The RFP is used for soliciting, evaluating, and selecting proposals from landlords and lays out the tenant's basic

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<sup>4</sup> Covenants are existing contracts that may limit the materials, equipment, contractors, and designers that can be used for improvements on the leased space.

requirements, definition of the premises, lease term, expansion and renewal options, rental rate, and tenant improvements. The Green RFP includes a tenant's requirements relating to its green practices and how these will be structured into the lease document.

- Application: Working with their broker, the tenant can use the appropriate RFP language that best suits their needs. The landlord's response to the Green RFP sections – usually in the form of a Letter of Intent (“LOI”) – will assist the tenant in their site selection process.

### **LOI & Due Diligence: Comparing the Options and Making an Informed Decision**

- Definition: After the tenant has received responses back from the short listed landlords – usually in the form of an LOI – the tenant will need to analyze the proposals against one another. This comparative analysis evaluates the financial (rent, expenses, TI allowances), the legal (term, options, use) and the operational terms. It is preferable that a tenant be able to compare the green characteristics of the particular deals as well.
- Application: Based on the information the landlord provided in response to the RFP, broker-provided research as well as internal diligence, the tenant can fill out the Due Diligence Scorecard. The Scorecard (Figure 2) assists the tenant in comparing building's practices.

### **Lease Provision Database: Integrating Your Green Initiatives into the Lease**

- Definition: After the tenant has selected a site, the general business terms of the deal have typically been agreed upon and documented in an LOI. These business terms are then transferred into a legal lease document that will be reviewed and negotiated by attorneys from both sides. Just as is the case with other financial, legal or operational agreements between the landlord and tenant, it is important that green initiatives are properly structured within the lease.
- Application: The Green Lease Provision Database (samples included in Figure 3) is meant to provide the user with examples of lease language and concepts (sample provisions relating to building certification, transportation, water use, energy use, maintenance, and recycling are provided) as they pertain to a user's particular occupancy situation (single tenant vs. multi tenant) or specific objectives (energy utilization, recycling , etc). These lease provisions are not intended to be used without the input of a qualified attorney who is experienced in commercial leasing matters.

Figure 2. Sample Green DueDiligence Scorecard



Green Leasing  
Due Diligence Scorecard

	Site 1	Site 2	Site 3
<b>Existing Green Ratings</b>			
<i>Costar - the leading commercial listing database - allows brokers to track whether certain buildings have attained either a LEED or ENERGY STAR certification. Green minded tenants will find that these buildings are more likely to possess the building systems and management practices they desire. For example, it is reported that ENERGY STAR buildings use on average 35% less electricity than typical buildings.</i>			
Is the building or will it be LEED certified? (Platinum , Gold , or Silver)			
Is the building or will it be ENERGY STAR certified with a score higher than 75.			
<b>Existing Green Rating Score</b>			
<b>Transportation</b>			
<i>Automobile use is the single largest source of greenhouse gas emissions in California. By selecting office space that is conveniently located to public transportation as well as providing alternative transportation options - your Company can reduce the impacts and costs associated with employee commutes.</i>			
Is the building either a 1/4 mile from or shuttle linked to a light rail, subway or bus line?			
Does or will the building have secure bike storage available to tenants and employees?			
Does or will the building provide showers, change facilities and lockers for cyclists?			
Does or will the facility provide special charging stations for alternatively fueled cars?			
<b>Transportation Score</b>			
<b>Energy Use</b>			
<i>Energy use by commercial buildings represents a significant source of greenhouse gas emissions in the State of California. Utility bills also represent 30% of a total buildings budget and are the single largest operating cost. By selecting energy efficient building systems and controls your Company can significantly reduce emissions and utility costs by as much as 50%.</i>			
Does or will the building use ENERGY STAR products?			
Have the buildings HVAC systems been recently commissioned and serviced?			
Are the tenants spaces separately metered?			
Does or will the landlord provide the ability to purchase renewable energy?			
Does or will the landlord monitor and report base building energy use?			
<b>Energy Use Score</b>			
<b>Water Use</b>			
<i>California is facing substantial water shortages - at the current rate the States demand for water will increase by 40% over the next 25 years. Enacting water efficiency measures in the office demonstrates environmental leadership as well as saves money in operating costs.</i>			
Is the building fitted with water efficient fixtures (toilets and sinks)?			
Does the buildings landscaping consist primarily of native climate tolerant plants?			

**Figure 3. Example Green Lease Provisions From the Database**

Provision	Significance	Sample Lease Provisions
Irrigation Systems Efficiency	Limit or eliminate the use of potable water for landscape irrigation	Lessor shall require that irrigation technologies are applied at the lowest rate required to keep plants healthy. Irrigation systems will be fed with captured rainwater, grey water or on-site treated water. Irrigation systems will be controlled by rain gauges or soil moisture sensors to eliminate unnecessary irrigation during or after rain events.
<b>Energy Use</b>		
ENERGY STAR Rating	Establish the minimum level of energy efficiency for the building and systems	Lessee and Lessor will work together to achieve an ENERGY STAR rating of 75 within X months after the Commencement date.
Lighting Controls	Reduces energy use	Lessor shall install occupancy sensors to reduce energy consumption by switching off lighting fixtures in unoccupied areas, and coordinate all spaces for occupancy sensor control with the Lessee.
Building Commissioning	Increase building system performance and reduce energy use	Lessor shall produce evidence of a recent building commissioning by a qualified engineer (to be repeated every x years), or Lessee may choose to conduct commissioning themselves during the due diligence phase.
Retrofitting Program	Increase building system performance and reduce energy use	Lessor agrees to pursue all available commissioning programs offered by the utility company (with cost under X) and implement retrofits recommended by the utility with cost and payback under X & Y respectively.
Establish Energy Optimization Plan	Optimize energy performance	Lessor and Lessee shall mutually establish an energy optimization plan within X months after the commencement of the Lease. The plan will consist of energy management covenants for Lessor and Lessee; monitoring and reporting requirements of base building energy use; regular maintenance and recalibration of base building services and action based response to performance issues.
Renewable Energy	Look to renewable energy in order to reduce environmental impacts associated with fossil fuel energy use.	Lessee and Lessor will work together to meet the LEED EB credit pertaining to renewable energy either through use of on site technology or through the use of procurement of green power from the local utility) by X months after the Commencement date of the lease.
Maintenance Staff Training	Ensure that staff is properly trained regarding best practices for energy management protocols	Lessee shall require that Lessor's maintenance staff is properly trained (Training specs to be determined).

Additionally, the toolkit includes recommendations and approaches for addressing specific situations and issues including the following:

- Establishing aspirational goals of attaining LEED EB silver and/or an Energy Star Rating of 85 or better.
- For existing leased space, or space that one desires to lease that does not currently meet one's green objectives, establish a mutually agreed upon path to greening the space over time consistent with sound financial practices including:
  - Specifying Energy Star rated equipment whenever energy or water using equipment is being replaced;
  - Conducting energy, water and waste audits every three to five years and automatic implementation of any and all measures with an acceptable payback period (recommend using at least a 5 year based on the volatility of energy costs and the importance of reducing one's environmental footprint, but a shorter paybacks could be mutually agreed to); and
  - Implementing capital upgrades with the tenant contributing to the annuitized costs up to the expected annual operating cost savings. This approach can be done now within most existing lease structures and could be a particularly powerful option.

The toolkit and guidance provides a path for greening leased space, successfully addressing the barriers. Sub-metering is neither necessary nor sufficient for addressing the green leasing barriers.



## Application

Many of the advisors (including CBRE, JP Morgan, Bank of America, and Cushman Wakefield) in the development of toolkit are now piloting using tools from the toolkit. The California Department of General Services (DGS) is currently piloting the use of the toolkit. The DGS has a wide variety of leases and situations. Through these pilot tests, the tools will be refined and expanded. The early experience demonstrates the importance of:

- Establishing policies at the executive level – significant efforts at change management may be required. Staff making leases are often decentralized, operate independently, and the lease rates may be a factor in determining their compensation. It takes effort to get internal alignment.
- Including the green objectives in the RFP – once the RFP is issued, options and ability to insert green considerations become severely limited.

## Conclusions

The toolkit is a repository of best practices that will be expanded based on experience. Organizations that wish to green their leased space can use the toolkit to shorten their learning and development time. Through an open dialog owners and tenants can successfully green leased space. Existing contractual and financial mechanisms can be applied to green leased space. The essential steps leading to a green lease include open dialog, developing goals, communicating goals, and incorporating green practices into ongoing capital and operating processes. The Toolkit provides specific guidance to facilitate opening this dialog, developing and communicating goals, and incorporating green practices into ongoing capital and operating processes. Early experience indicates that the tools are useful starting points, but that the framework, i.e. instilling the green objectives and policies throughout the entire leasing process is of paramount importance.

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