DTZ Research

DTZ Insight
Green Offices Prague
The Prague office market going green

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- DTZ publishes the DTZ Insight Green Offices Prague in order to assist occupiers and landlords to familiarize themselves with the new trend on the local market and to find answers to questions such as:
  - How to define a “Green Building”?
  - What is the current and future expected supply of green offices in Prague?
  - What benefits and associated costs are connected with green buildings?
  - How to maximise the benefits resulting from the sustainable use practices of existing green buildings?
- Green buildings are not only energy efficient, but they should also be environmentally, socially and economically sustainable, which means they are likely to face lower obsolescence risk in the long term.
- The performance of green buildings is assessed by independent international and local rating systems that provide transparent comparison for investors and occupiers. They can be used as a guide for investment decisions. It is however important to distinguish between the levels under which a rating has been assigned, as well as the different versions of the rating systems, as they vary in terms of performance and associated benefits.
- Additional costs of green buildings can be minimised, if the certification process is started during the earliest planning stages.
- Potential rental premiums on green buildings are offset by lower service charges for occupiers and a healthier environment for the staff.
- 76% of the planned office supply for 2011-2013 in Prague will be applying for some form of green building certification.
- The main challenge will be how to make existing office stock competitive, specific certification is also available for existing stock. In this respect sustainable property management becomes crucial.
- The occupiers and landlords benefit from “green leases” that provide guidelines for sustainable building management and use.

Introduction

During the last year the Czech real estate market has seen weighty discussions regarding "Green Buildings" taking place in various professional fora. Suddenly, everybody wants to be "green" and follow the Western European trend, which has broken into the Czech, and specifically Prague real estate market. The regional office markets still continue to be dominated by cost considerations.

"In most of Western Europe, America and Australia "green" is now already a part of the DNA of the real estate development sector"

Multi Development, Glenn Aaronson

In France for example HQE certification is the most popular rating system (Page 5). In Paris over 80% of projects with more than 5,000 square meters of surface area slated for completion in 2012 are HQE-certified. Among those delivered in 2010, 71% were certified.

In Germany, the most widely spread is the DGNB certification (Page 5). During 2010 8 projects with 302,800 sq m received a DGNB certificate and 386,700 sq m a pre-certificate (26 Projects). Projects planned for 2011 and later with a total 905,600 sq m have obtained a pre-certificate. There are two BREEAM certified projects (50,000 sq m) and seven projects LEED certified (195,400 sq m), three LEED pre-certified (73,000 sq m) and almost 1,250,000 sq m with planned LEED certification. Both Germany and France illustrate rising demand for Green Building certification for the years ahead.

But what does going "green" really mean? On one hand it is about energy efficiency

Energy consumption of buildings accounts for around 40% of the total energy consumption in Czech Republic as well as the EU. On the back of rising energy costs and international regulatory initiatives to reduce CO_2 emissions, energy efficient buildings make perfect economic sense. By saving on operational costs, we are also saving the environment.

But it is not only about saving energy, green buildings should be environmentally, socially and economically sustainable

Lower energy consumption is an integral part of the green building concept, but it is only one part of it. Green buildings are perceived as sustainable in the long-term, they are friendlier to the environment and they are constructed from materials and using processes less harmful to the environment, starting with sustainable land use. Green buildings´ water and waste management and energy consumption reflect sustainability goals. The concept of a green building also incorporates social categories such as transport solutions along with health and well-being considerations. A "green" building should correspond to "a high performance property that considers and reduces its impact on the environment and human health".[1]

"Location, specification, efficiency and adaptability"

At DTZ, we believe that "green" will become a vital ingredient of "prime" and that green building ratings will become a de facto requirement of global real estate markets, tagging non-compliant properties that do not, or will not, meet prescribed standards. There has been a shift from "location, location, location" to "location, specification, efficiency and adaptability".[2] Location and sustainability will be the two main pillars in maintain the value of a property.

Recently the question the developers are asking themselves is not whether to build green at all, but what level of certification they should target in order to satisfy the needs of occupiers and investors, be competitive on the market and balance the costs and benefits.

Figure 1

Edificio Consorcio, Santiago, Chile

Source: http://webecoist.com/2009/03/02/beyond-green-roofs-15-vertically-vegetated-buildings/

The issue becomes more pressing in light of tighter legislative regulation. A major challenge will be the EPBD II Directive 2010/31/EC, a follow up of the EPBD I Directive 2002/91/EC, which introduced the Energy Performance Certificates to evaluate the energy consumption of the building and is now an obligatory part of the building permit. The EPC provides energy

[1] DTZ: Does Green Pay, 2008.

[2] Kate Medlicott, Associate Director, Forecasting & Strategy, DTZ Research: Sustainable, profitable buildings key to future, South China Morning Post, 26 January 2011

Introduction

consumption ratings from A to G. However, it focuses purely on energy consumption and should not be mixed with the green building certification systems, which are more complex. It also varies in terms of calculation methods.

The EPBD II goes much further and sets obligations that from 31st December 2018 all new buildings occupied or owned by public authorities will be required to have a near zero energy standard and the same will apply to all new buildings as of December 31st 2020. This will have a major impact on the entire real estate industry, as the requirements will go far beyond the current requirements of the highest levels of the green building rating systems.

A way forward

The regulatory initiatives point a way for the future of the green buildings in Czech Republic. In other countries outstanding examples of buildings can be found already now, that go far beyond the standard of green buildings as defined by the certification systems.

The so called net zero buildings with zero net energy consumption and zero carbon emissions annually are buildings that are independent from the energy grid and produce energy on site while using extremely efficient HVAC and lighting technologies. Net zero energy buildings have a much lower environmental impact than green buildings.

The majority of net zero energy buildings have been however built by public sector, universities or using governmental subsidies. An outstanding example of a non-commercial project is for example the Bertschi school, Seattle, USA - a net zero energy and water usage building, harvesting rainwater and treating greywater on site and producing energy with photovoltaic panels.[3]

Google has used California subsidies for installation of 1.6 megawatts of solar photovoltaic panels at their Googleplex HQ Mountain View campus. It is offsetting ca. 30% of the peak energy consumption. Google have developed advanced technology for major reductions in computer-server energy consumption, which is becoming a major part of modern zero-energy commercial building design, along with day lighting and efficient electrical lighting systems.

Case study, 31 Tannery Project

The 31 Tannery Project, located in New Jersey, serves as the corporate headquarters for Ferreira Construction, the Ferreira Group, and Noveda Technologies. The 3,900 sq m office and shop building for over 200 people was completed in 2006.The building is the first net zero electric commercial building in the United States. It uses 1,276 solar panels. At the end of the first year the 31 Tannery project net result was 1 full month of excess energy.

Figure 2

31 Tannery Project

Source: /http://www.automatedbuildings.com/news/nov07/articles/ferreira/071025124909tannery.htm

[3] Source: Skanska

What are Green Buildings?

Rating systems inform on value, provide transparent comparison and guide investment decisions

Green rating systems are voluntary initiatives that assist in identifying the degree, to which a building achieves sustainable practice in design and operation.

Green rating systems provide an important method for the transparent measurement and assessment of building performance. The data collected can inform decision makers on value, guide investment and provide comparisons that assist in stock selection. The most widely used rating systems such as BREEAM and LEED and examples of other national rating systems are listed below.

The choice of a particular rating system depends strongly on national practice, but some building owners adopt double or triple certifications, to provide a more transparent guideline for international occupiers and investors. Before choosing a green rating the requirements of future tenants and investors should be identified along with individual environmental and sustainability goals.

BREEAM
BREEAM was established by the Building Research Establishment in the UK in 1990 to measure environmental impact of office buildings. Since 2008 a BREEAM Europe rating has been operational with a focus on local specifics.

Table 1

BREEAM categories	
Management	Policy, commissioning, site management and procurement
Health & Well-Being	Indoor and external issues with noise, light, air quality etc.
Energy	Operational energy and CO_2
Transport	Related CO_2 and location issues
Water	Consumption and efficiency inside and out
Materials	Embodied impacts of materials, lifecycle impacts
Waste	Operational efficiency, construction waste management & minimisation
Land Use & Ecology	Site & building footprint, conservation & enhancement of site
Pollution	External air and water pollution

Source: BRE

The points achieved in each category are weighted to produce a rating. The highest weighting is on Energy (19%) followed by Health and Well-being (15%).

Buildings can achieve the following ratings: Pass (30%), Good (45%), Very Good (55%), Excellent (75%) or Outstanding (85%).

BREEAM operates in three key areas: Buildings, Communities and In-Use. The above figures include a number of use classes, from BREEAM Courts and BREEAM Hospitals to BREEAM Offices and BREEAM Retail.
BREEAM methodologies are used to assess new buildings or major refurbishments and fit-outs of existing buildings at the Design Stage or Post-Construction Stage, where the final certification is awarded. BREEAM *In-Use* is the exception and has been developed to focus on existing operational buildings and reducing their running costs, until this point it has been based on UK standards but is now being altered to use local codes (Page 10).

LEED
LEED was developed by the US Green Building Council in 1998-2000.

Table 2

LEED categories	
Sustainable Sites	Site selection, development density, community, transport
Water Efficiency	Water use reduction
Energy & Atmosphere	Energy performance and measurement, refrigerant management, green power
Materials & Resource	Materials and building reuse, waste management, tenant space, recyclables
Indoor Environmental Quality	Ventilation, low-emitting materials, controllability of systems, thermal comfort, daylight

Source: USGBC

The ratings awarded are as follows: Certified (40-49 points); Silver (50-59 points); Gold (60-79 points); Platinum (80 points and above). The maximum is 100 plus 10 bonus points (6 for innovation in design and 4 in regional priority). Although it includes regional priority points, it is still largely based on US norms and standards.

There are several mutations of the certificate for various types of buildings and stages of construction including LEED for Core and Shell, New Construction, Schools, Neighbourhood development, Retail, Healthcare, Homes and Commercial Interiors. The above methods of assessment examine the design and construction phase of a development, but LEED for *Existing Buildings: Operations and Maintenance* deals with building operational and maintenance issues (Page 10).

What are Green Buildings?

The LEED certificate has the advantage of pre-certification for the shell and core project, this provides the possibility to adapt the building to tenants´ requirements in a later stage and gives also tenants a clear indication of the future project performance, as the certificate is issued only after one year of operation of the building.

In other parts of Europe different measurement systems for building performance prevail. **HQE** is a certification for commercial buildings in France and was first introduced by the non-profit ASSOHQE in 1996. HQE is a management system, rather than an assessment tool and only began certifying projects in 2005. HQE considers two overarching categories: the management and operation system, which sets goals for the general contractor, and building quality, which assesses the efficiency of the structure itself. HQE covers all building usages.

The German Sustainable Building Council (DGNB) created the **DGNB Certification** in conjunction with the Federal Ministry for Transport, Buildings and Urban Affairs (BMBVS) in June 2008 to evaluate building quality and a sustainable construction process. Buildings are rated according to 6 categories with 51 sub-criteria. Each criterion can be awarded a maximum of 10 points and has a weighting between 0.5 – 3 with a building ultimately being awarded a gold, silver or bronze rating depending its level of success.

Green Rating

Green Rating© arose from the need for a pan-European method of measuring the environmental performance of existing buildings. It was launched jointly in 2009 by Bureau Veritas and some leading Investment Management Companies including AXA Real Estate Investment Management, AEW Europe, ING Real Estate and GE Real Estate Europe. A non-profit Green Rating Alliance was formed by these parties in March 2011.

A distinguishing feature of the Green Rating© is that it provides quantifiable indicators with specific recommendations for improving the performance of buildings and portfolios through improvements and addresses both occupier behaviour along with management operations.

Its six criteria are assessed on four levels, Intrinsic (Evaluated according to the building envelope and installation as originally built), Potential Intrinsic (Predicted performance versus intrinsic value after limited investments), Actual (Assessed based on current occupants and operations) and Potential Actual (Potential for evolution based on behavioural improvements and operational adjustments). This distinguishes between the sustainable environmental performance given design and equipment, and an evaluation based on use and operations. The relative weighting of each criterion varies between the Office, Retail and Logistics schemes.

Table 3

Green Rating© categories	
Quantitative:	
Energy	Assessment of technical and behavioural energy consumption in kWh/m^2/year
Carbon	Based on conversion of energy performance by country specific CO_2 factors in $kgCO_{2eg}/m^2$/year
Water	Technical and behavioural water consumption assessed and reported in m^3/m^2/year
Qualitative:	
Transport	Sustainable transport issues in relation to building design, location and existing building user transport initiatives
Well-being	Design, layout, and operational practices that influence health, comfort and overall well-being of occupants
Waste	Building capacity to effectively address waste management and occupier behaviour towards waste issues

Source: Bureau Veritas

A final report is drafted with the results, key indicators and recommendations for improvement.

To date over 4 million sq m of European property space in more than 60 cities across 12 countries has already been measured by the Green Rating.

SB Tool CZ

The SB Tool is an international rating system with a 10 year history. It was adapted to the Czech environment and launched in 2010. The Czech rating system is being developed by the research centre CIDEAS at the Czech Technical University, the certifying body is the Technical and Test Institute for Construction Prague (Technický a zkušební ústav stavební Praha). The calculations were amended to Czech norms with criteria relevant to the Czech construction sector. There are 33 criteria, 11 social, 12 environmental, 4 in economy & management, 6 in location. The criteria are weighted similarly to LEED. A building is certified (0-3.9), bronze (4-5.9), silver (6-7.9) or gold (8-10).

Currently, the rating system applies only for residential projects, with one project silver certified (X-Loft, Prague 8), but a version for office buildings is in progress and should be finalized in July 2011. An SB Tool CZ for the

operational stage would be developed at a later stage depending on demand.

Table 4

SB Tool CZ	
Environmental	Global warming potential, acidation, eutrophisation potential, ozone layer destruction potential, potential of ground level ozone creation, use of greenery on site, on facades and roofs, drinking water consumption, primary energy consumption from non-renewable resources, construction materials, soil use, share of rain water captured on site
Social-cultural	Visual, acoustic comfort, heat comfort (in winter, in the summer), user comfort, barrier free access, materials with no consequence on health, security in the building, use flexibility, space flexibility, use of building exterior for residents
Economy & Management	Occupational costs analysis, provision of operational and executing documentation, waste management, operational autonomy
Location	Biodiversity, accessibility of amenities, leisure, public transport, safety of the building and surrounding, elementary risks (floods)

Source: SB Tool CZ

Green Offices in Prague

As of now, there is only existing office building in Prague that has obtained a green building certification, the ČSOB HQ (35,000 sq m) in Prague 5, completed in 2006, which boasts LEED Gold.

In Ostrava, Nordica Office Building by Skanska has achieved the Green Building Certificate for buildings that save 25% of energy compared to national norms (for new buildings) or compared to the consumption before and after optimisation (for refurbishments) handed out by the European Commission.

Outside of these Centrum Zlatý Anděl in Prague 5 and Beta building in BB Centrum in Prague 4 managed by ING REIM have obtained the international BREEAM In-use certificates for operational buildings.

The future of the Prague office market is going to look greener

The forthcoming project City Green Court in Prague 4 developed by Skanska received LEED Platinum Pre-certification in 2010, the highest level of the latest version of LEED. City Green Court is the first office project in the Czech Republic to achieve this. The features that contributed to the LEED Platinum pre-certification include for example: a sophisticated lighting system employing occupancy and daylight sensors, green roof, a highly-efficient irrigation system and an impressive closed atrium utilizing natural ventilation.

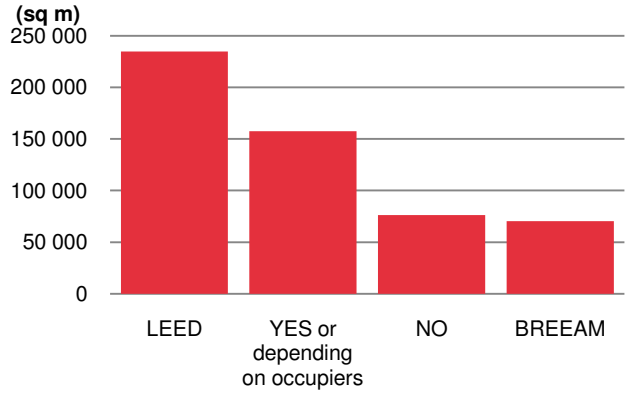
There are currently ca. 123,900 sq m of office space under construction or reconstruction in Prague that should be certified, this accounts for 74% of the supply pipeline under construction or reconstruction.

In total during 2011-2013 approximately 412,000 sq m are aiming to achieve some form of certification (76% of the supply pipeline for 2011-2013). For roughly 51,000 sq m of office space, landlords will base their application depending on the demand shown by potential occupiers. For 106,000 sq m it is not known yet what type of certification will be targeted.

At this time more than half of the projects awaiting certification are applying for LEED, with highest preference for LEED Gold. The preference relates to standards used by the international development companies in other countries, the preferences of targeted potential tenants and also the fact that LEED is the world-wide most widely used system. Many of the large corporates are also US origin. Approximately 92% of BREEAM certified projects are targeting BREAM Very Good. Of the two most applied systems, BREEAM is slightly less demanding in terms of the certification process as well as less costly, the two rating systems are however closely linked and interact with each other.

Figure 3

Certification of pipeline projects in Prague 2011-2013



Source: DTZ Research

Table 5

Selected planned projects with certification 2011-2013

Building	Office Area (sq m)	Developer	Certification
Main Point Karlín	25,702	PSJ Invest	LEED Gold
Lyra	6,516	Immorent	BREEAM Very Good
Futurama Business Park 2nd phase	16,042	Immorent	BREEAM Very Good
Qubix 4 Praha	11,722	Plan und Bau	LEED Gold
City Green Court	16,300	Skanska	LEED Platinum
River Garden	17,800	HB Reavis	BREEAM Very Good
Diamant	2,732	Mustela	LEED Gold
Palác Křižík extension	5,336	Cecopra	BREEAM Excellent
Na Příkopě 14	6,500	Lordship / IMMOFINANZ Group	LEED Silver
Copa Center	16,208	Copa	LEED (Silver or Gold)
Horizon Offices	24,000	Premium Red	LEED
Office Islands Ithaka & Svalbard	20,990	Hochtief	LEED Silver
NE Corner 1st ph.	25,000	Skanska	LEED Platinum
Waltrovka 1st phase	18,517	Red Group	LEED
AC Pankrác	24,738	Immorent	BREEAM Very Good
Explora II.phase	22,500	Avestus RE	LEED Gold
Galerie Stromovka	7,000	Lordship	LEED Gold
Kolben Cube	20,170	Codeco	LEED Gold

Source: DTZ Research

Benefits & Costs

Benefits

According to information from the US Green Building Council, based on several studies, green buildings can reduce 24-50% of energy use, 33-39% CO_2 emissions, 40% water use and 70% of solid waste, with perceived benefits such as operating cost decreases of 8-9%, building value increases of 7.5%, improvements of 6.6% on return on investment, 3.5% occupancy ratio increases or 3% rent ratio increases.[4] A study by the California University from 2008 even states rental increases of 4-6%.[5]

DTZ is a member of the Czech Green Building Council Working Group, which is currently preparing a study analyzing the costs and benefits of green buildings in great detail, the results are to be published during the course of 2011.

Green buildings face reduced obsolescence risk

For **landlords and investors** the main benefits of pursuing sustainability goals lie in marketing their properties to increasingly aware occupiers and in protecting their investment returns. Sustainable green buildings must not offer higher rents or more competitive yields in the short term, but they are perceived as a way of reducing obsolescence risk in the long term. Such buildings are able to keep in step with tightening environmental regulations as well as developing demand patterns of occupiers and investors.

According to various surveys most investors integrate sustainable practices across all investments. The certification of a green building is also increasingly included as one selection criteria in the acquisition by many investors.[6] Although still a minority, some investors have also launched specialised “Green Funds”.

The **financing banks** also acknowledge this new trend on the Czech market and the role of project certification. In the long term non-certified buildings are considered as difficult to lease and therefore more risky by financing institutions and they also therefore apply a lower LTV ratio to these projects according to Lenka Kostrounová from ČSOB.

Any quantitative data on benefits are very difficult to obtain due to limited stock and a relatively short time frame. Most quantitative indicators are available from the USA, as the green building sector is the most developed there, although these indicators will necessarily not apply fully to other local market environments. A study by GreenWorks Realty in Portland and Seattle, US stated that in 2010, environmentally certified office space was valued at about $20 more per square foot ($1.85 per sq m) than conventional office space.[7]

Occupiers consider total costs of occupation

Occupiers tend to adopt a pragmatic approach to sustainable development. "Users ask themselves two fundamental questions: what are the costs generated by going green, and what kinds of benefits can we reasonably expect to receive?"[8] Occupiers consider the total costs of occupation. While new green office buildings often charge slightly higher rents due to increased construction costs and also due to limited supply, this is balanced out by lower utility charges resulting from reduced energy consumption. Therefore the total occupancy costs should be competitive when compared to other conventional buildings.
Corporate occupiers pursue sustainability goals and require green office space as a part of their corporate social responsibility. In the Czech Republic typically international companies, whose parent companies have very well defined CSR strategies are at the vanguard of requiring green space.

When occupying City West (25,000 sq m), Prague 5 Siemens requested special green features in the construction such as intelligent lighting. PWC London HQ was named the most sustainable development in London with BREEAM Outstanding (EPC A). The 48,000 sq m office building will gain 25 % of its energy from recycled biodiesel generators (using redundant cooking oil) situated onsite. The Czech PWC is currently also considering a relocation of their HQ and sustainability criteria are on the top of the list. Other corporates, who are including their sustainability CSR policies into their search for new office accommodation in Prague include among others Vodafone, GlaxoSmithKline, Alpiq.

Other less tangible benefits for occupiers, difficult to quantify, include brand enhancement, employee retention or the increased productivity, which the healthy, pleasant environment of a green building can offer.

The increase in productivity of workers results in substantial savings and outweighs the savings on operational energy costs, according to the BCO Guide to specification from 2009. A report by YouGov from 2007 provides insight into the most important priorities of office workers, with comfort in the working environment, temperature and lighting rated the highest, even higher

[4] USGBC : Why build green?
[5] British Council for Offices: Guide to Specification, 2009, Page 30.
[6] INREV: Sustainability report, September 2010.
[7] http://buildipedia.com/go-green/eco-news-and-trends/item/1347-forecasting-green-construction-spending-for-2011
[8] DTZ, Le livre blanc de l’immobilier durable, Paris, 2009, Page 25

than accessibility and transport connections. It is however very difficult to actually measure these productivity increases, according to studies mentioned by the BCO productivity gains of 25% to 30% and operational savings of 30% are reported by green buildings.[9]

A potential obstacle is the reluctance of occupiers and landlords to make investments into building improvements when leases are shorter than pay-back periods.

Costs

Despite being hard to quantify, there is little doubt about the benefits of green buildings. But how does this translate to their cost?

The cost for the certification process ranges for BREEAM Europe from £2,900 to £5,000 depending on the size of the project. It includes registration fees (£700-1,350), design stage and post construction review.

LEED for New Construction collects a registration fee of $900- $1,500. Additionally, the applicant must purchase a 'guide', which costs $150. A combined design and construction review can cost from $2,250 to $27,500 (for non-members), with certification fees ranging up to $10,000.[10]

The level of costs and associated benefits is influenced by the choice of rating level as well as the rating version

The actual construction cost increase depends on the level to be achieved in the ratings, whether it is LEED Silver or Platinum. The choice of the certification version has also significant cost and benefit implications. Older versions such as LEED v. 2002 are less demanding than LEED 2009.

Points can be collected for installing of bike stands or public transport connections, which require minimum additional cost. Also a smart design can save substantial cost on technologies. The location and form of the building, depth and height of the rooms, the size and location of windows have significant impact on energy use. However sophisticated ventilation, heating systems and facades or renewable energy sources can lead to cost increases.[11]

Additional cost is closely linked to the stage, at which a developer opts for certification

Examples from Hungary show that for a BREEAM Very Good rating additional costs can be close to zero (0-1%), under the condition that the developer starts in early design stages with the certification process. For an BREEAM Excellent rating, which is more demanding additional construction costs reach to 2-3% extra than for a conventional building. The later the certification process is started the higher can be the extra costs as shown on the example of a BREEAM Good rated building in Budapest, where additional costs reached more than 5% as the certification was started only during construction, according to consulting company ERM.

It is estimated that additional construction costs for LEED Platinum, the highest achievable level would range around 5% in the Czech environment, under the assumption that the process is started at the earliest stage of planning process. For LEED Gold the additional costs are substantially lower at around 0.5%-1%.

[9] British Council for Offices: Guide to Specification, 2009. , Page 29.

[10] http://www.gbci.org/main-nav/building-certification/resources/fees/current.aspx

[11] US studies state additional cost of constructing a USGBC LEED certified building at 2-5 percent ($7.50 to $12.50 per square foot) higher than that of a standard building, the financial benefits amount to savings of $52.87 per square foot for LEED's Certified or Silver buildings and $71.31 per square foot for a Gold or Platinum buildings, according to consulting firm Cap-E. In: http://www.climatechangecorp.com/content.asp?ContentID=6094

Green Use - Green Lease

A building can obtain a green building certificate, but what matters most is the actual use and management of the building. In order to fully exploit the benefits of green buildings, the ratings must be used in accordance with the best property management practice, thereby achieving the desired performance. Practical experience from operations of existing green buildings shows that setting use guidelines and mutual responsibilities of the landlord and tenant is essential for achieving the energy savings and overall operational savings.

In this context, the so called “green leases” can provide a useful framework for the landlord - tenant relationships and assist both on the way to sustainable building management and lower costs. They establish a set of measures to be taken with responsibilities and costs for either tenant or landlord with a dual incentive system. The term originates from Australia and is being used primarily in the Anglo-American markets, however it has been adopted also in Europe.

There is no fixed definition of what constitutes a green lease. It is more type of a lease contract, with great variability. Green leases can range from light green with only statements of intent, over mid green including a schedule of building management obligations to deep or dark green, which can set penalties and financial sanctions and break clauses, establish rent reductions or caps on rent reviews.

The provision of a user guidebook should be an integral part of a green lease, for example advising tenants how to ventilate the premises, how to recycle or from where the canteen sources its food (according to LEED 25% of the products should be brought from less than 100 km distance). Information exchange should be set in the green lease on water, heat, gas and electricity consumption and cost.

The tenant can be awarded for the green use for example by reductions of the “Green Premium” on the base rent.

Usual clauses of green leases include:

- Description of Operating Charges
- Permitted Uses
- Recycling and Waste Management
- Assignment and Subletting
- Repairs and Maintenance
- Description of Services Provided
- Building Rules and Regulations
- Contractor Workletter/Rules and Regulations for Tenant Improvements[12]

Additional requirements set in green leases can be:

- Requirement to purchase renewable energy
- Compliance with building a specific "green operations manual"
- Compliance with or exceeding the building's recycling programme
- Prohibiting non-recyclable or unnecessary beverages (such as bottled water) in exchange for filtered water systems
- Requiring all Tenants to print double sided documents

There are certain pros and contras of applying green leases. The strict regulations can lead to reduced lettability of a building, in case the lease does not balance costs and benefits properly, tenants can fear that the landlords´ green improvements of the building are at their expense.

On the other hand green leases improve the image of the building. Building improvements result in savings to the tenant and potential investment value increases to the landlord. The building would be more attractive to tenants with strong CSR credentials.

The sharing of data of the building enables improvements of the performance. The environment created by green leases can lead to improved landlord – tenant relationship.

Commercial green leases have a more positive effect on net operating income than traditional commercial leases.

[12] http://www.green-buildings.com/content/781256-commercial-green-building-lease-8-provisions-and-guidelines-consider

Green Use - Green Lease

Even for existing buildings in-use certification can be obtained with limited investments, if green leases are applied. In this respect sustainable property management becomes crucial.

The BREEAM In-Use assessment scheme, launched in March 2009 in the UK and in 2011 in Europe, provides a detailed insight into the environmental performance of buildings throughout their operational lives. BREEAM In-Use assessments cover 3 aspects of performance:

- Asset – the inherent performance characteristics of the building based on its built form, construction and services;
- Building management – the management policies, procedures and practices related to the operation of the building; the consumption of key resources such as energy, water and other consumables; and environmental impacts such as carbon and waste generation;
- Organisational effectiveness – the understanding and implementation of management policies, procedures and practices; staff engagement; and delivery of key outputs.

It is possible to certify only one aspect of the performance or all three aspects. The most common are certifications of the asset together with building management. The registration costs £500, the actual assessment ranges from €2,000 to 3,000. It is valid for one year but the recertification fee amounts only to £50. The annual recertification provides scope for rating improvement each year.

Figure 4

Green use

Source: DTZ

LEED for Existing Buildings addresses whole building cleaning and maintenance issues (including chemical use), recycling programmes, exterior maintenance programmes, and systems upgrades. It can be applied both to existing buildings seeking LEED certification for the first time and to projects previously certified under LEED for New Construction, Schools, or Core & Shell. As opposed to planned projects LEED for Existing Buildings is rated on the basis of measured data and not calculated data, therefore projects, which have obtained in the development process a LEED certification (valid for 5 years) can still drop significantly in the in – use rating. The LEED for Existing Buildings is also valid for 5 years.

Certification fees for LEED for Existing Buildings start at $1,500 and go up to $20,000 for very large projects. The recertification fee ranges from $750 to $10,000. In addition to a regular review fee a expedited fee of $10,000 is charged.

A specific category is the **LEED for Commercial Interiors,** which has particular relevance to occupiers. This system rates the interior fit-out of the occupiers.
It adresses seven topics: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design, Regional Priority. Tenants who lease their space or do not occupy the entire building are eligible. It assesses for example the use of energy in the tenants space, what type of refrigerators and other equipment tenants use, water management in the occupied areas, waste recycling of tenants as well as long term commitments of the tenants (The tenant that commits to remain in the same location for a minimum of 10 years is eligible for credits). The use of recycled or refurbished furniture and furnishings and renewable materials in the interior is also awarded.

The In-Use certification provides a useful tool for owners, where to focus investments and other interventions to maximise the performance of existing buildings.

Occupiers can identify how to save money and improve profitability of business operations.

Property Managers can benefit from regular reviews, which may lead to improvement in property performance.

Sources

DTZ Czech Republic is an active member of the Czech Green Building Council and participates on its working group Green Building Costs, Benefits and Values.

In 2010 DTZ Czech Republic was appointed to exclusively market City Green Court - the first LEED Platinum Pre-certified office project by Skanska Property in Prague 4 (16,300 sq m), which reflects DTZ expertise and commitment to the Green Building Agenda. The Czech team is supported by an international group of experts in the field of sustainability.

DTZ cooperated on this brochure with the consulting companies ERM and Made sustainable, both specialists in green building ratings.

British Council for Offices: Guide to Specification, 2009.

DTZ: Does Green Pay, Belgium, October 2008.

INREV: Sustainability Report, September 2010.

IPF: Greening Leases: The Landlord and Tenant Relationship as a Driver for Sustainability, August 2009.

Paris Region Economic Development Agency in collaboration with Arene, Certivéa and DTZ: Green Real Estate - Concepts, Perceptions and Market, March 2010.

RICS: Green Value, Green Buildings, Growing Assets, 2005.

USGBC : Why Build Green?, 2010, http://www.green-buildings.com

World Business Council for sustainable development: Energy Efficiency in Buildings, Business Realties and Opportunities,July 2008.

http://www.immobilien-zeitung.de/101439/gruen-ist-in-und-bringt-geld-weg-zum-green-lease

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