Going Green Malaysia

toward a greener tomorrow

Green News Items

- The Malaysian Government announced it will stop all production, import and sales of traditional incandescent light bulbs by 2014 to reduce carbon dioxide emissions and also reduce total energy usage in the country by 1%. (*The Star*, 19/3/2010)
- Malaysia has launched a nationwide campaign to plant 26 million trees by 2014 to commemorate Earth Day 2010. The 26 million trees represent the estimated 26 million population of the country. (*The Star*, 22/4/2010)
- Malaysians are the highest fuel consumers in ASEAN, at more than 400 litres per capita annually in 2007. Singapore is second at just 250 litres per capita. (*The Star*, 26/5/2010)
- Malaysia's annual deforestation rate is accelerating faster than that of any other tropical country in the world, jumping almost 86 percent between the 1990-2000 period and 2000-2005.(UNFAO, 10/3/2010)
- Five hotels in Malaysia have been chosen as the new recipients of the Asean Green Hotel Award 2010, bringing the total number of such hotels in the country to 10. A total of 155 hotels from 10 Asean countries received the award in 2010. (*The Star,* 26/1/2010)

CBRE
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The built environment is responsible for one third of the world's total energy consumption and also accounts for a similar percentage of the world's greenhouse gas emissions. While it is still early days for the green building industry in Asia, the growing drive towards sustainability and greater focus on corporate social responsibility are combining to drive its rapid expansion.

In 2009 Malaysia joined this trend with the launch of its Green Building Index (GBI). Although the country's green building industry is still in its early stages of development, many key participants in the country's real estate sector are starting to recognise that they have a responsibility to adopt sustainable building practices and related technologies in order to play a proactive role in climate change mitigation.

The GBI has been modeled on international green building rating systems such as USA's LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method) and was jointly developed by the Malaysian Institute of Architects and the Association of Consulting Engineers Malaysia (ACEM).

greenbuildingindex

The logo for the Green Building Index

The Malaysian government is supporting the drive towards green buildings and green technology and its Budget 2010 was the first one ever to give priority to the procurement of goods and services that are environmentally friendly.

The budget contained the pledge to create a fund of no less than RM1.5 billion to be given as soft loans to companies that supply and utilise green technology. The government has also granted tax breaks and stamp duty exemptions respectively to building owners obtaining GBI certificates and buyers purchasing buildings with GBI certificates. Over 80 buildings have already applied for GBI certification, but only one building, the government-owned PTM Green Energy Office in Selangor, is fully certified, while seven others have received provisional certification.

The Green Energy Office in Selangor

In addition, a number of buildings in Malaysia have been LEED or Green Mark (Singapore) certified as well.

An encouraging sign is that about half (three out of seven) of the buildings to have achieved provisional GBI certification in Malaysia are residential buildings. This is different from most rating systems, where more commercial buildings than residential ones are environmentally-friendly.

At the same time, while Malaysia's launch of the GBI places it ahead of regional competitors such as Thailand, it must be noted that the requirements are less stringent than those in some other countries.

GBI Application Process

The GBI employs a three-stage application process, as follows:

Stage 1 - Application & Registration

In the first stage, the application must submit the GBI Application Form and supporting documents, along with a Registration Fee (set depending on project size), after which a GBI registration number will be given and a GBI Certifier will then be appointed for the project.

Stage 2 - Design Assessment (DA)

Next, the project will undergo the GBI Design Assessment (DA) to be undertaken by the GBI certifier, preferably to be done before the start of construction. Based on the DA, a provisional GBI Design Assessment certification will then be issued with the accompanying GBI score sheet to show the scores achieved.

Stage 3 - Completion & Verification Assessment (CVA)

Upon completion of the project, the Applicant should submit for the Completion and Verification Assessment (CVA). This is to be done within 12 months after the completion of the building or when the building becomes 50 percent occupied, whichever is earlier. The final GBI award will be issued by the GBI Accreditation Panel (GBIAP) upon completion of this CVA assessment. Buildings will have to be re-assessed every three years in order to maintain their GBI rating.

GBI Grading Criteria

Sustainable developments under the GBI in Malaysia are rated according to six independent criteria, including energy efficiency, indoor environmental quality, sustainability of site and management, materials and resources, water efficiency and innovation, each of which is assigned a different weight, with a total score of 50 required to achieve certification.

GBI Rating	Points
Certified	50-65
Silver	66-75
Gold	76-85
Platinum	86+

The six criteria are as follows:

1. Energy Efficiency
Improvement of energy consumption by optimizing building orientation, minimizing solar heat gain through the building envelope, harvesting natural lighting, adopting best practices in building services including use of renewable energy.

2. Indoor Environmental Quality
Achievement of good quality performance in indoor air quality, acoustics, visual and thermal comfort. These will involve the use of low volatile organic compound materials, application of quality air filtration, proper control of air temperature, movement and humidity.

3. Sustainable Site & Management
Appropriate sites with planned access to public transportation, community services, open spaces and landscaping, avoiding and conserving environmentally sensitive areas through the redevelopment of existing sites and brownfields and implementation of proper construction management, storm water management and reduction of strain on existing infrastructure capacity.

4. Materials & Resources
Usage of environment-friendly materials sourced from sustainable sources and recycling and implement proper construction waste management with storage, collection and re-use of recyclables and construction formwork and waste.

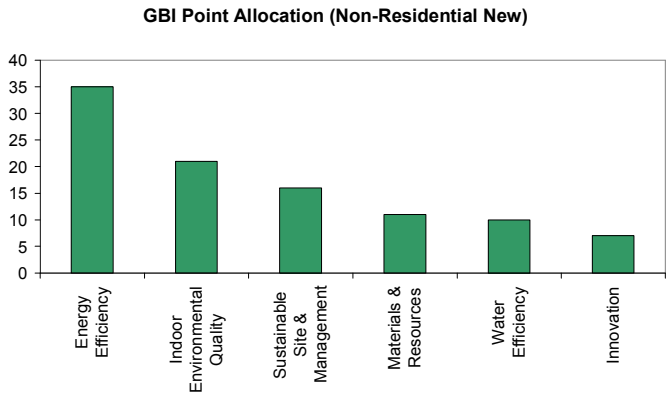
5. Water Efficiency
Utilization of rainwater harvesting, water recycling and water-saving fittings.

6. Innovation
Innovative design and initiatives that meet the objectives of the GBI.

GBI Rating Systems for Different Types of Property

Malaysia's GBI is unique in that it developed rating systems for both non-residential and residential property concurrently. In most other nations, the rating system for commercial properties was later modified to allow for non-commercial properties. These different rating systems are required due to the fact that residential buildings function differently from commercial, industrial or institutional buildings and also have peak-use periods that differ markedly.

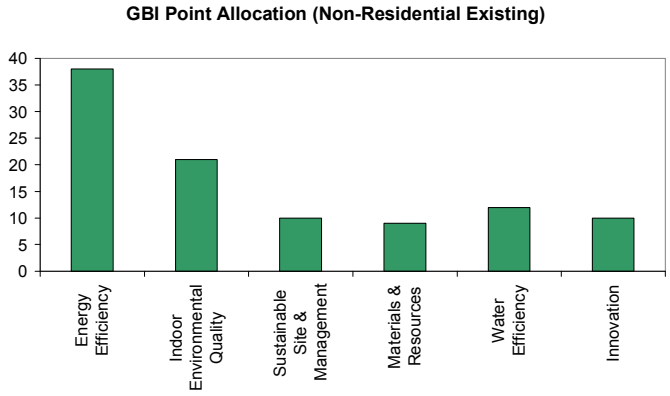
Non- Residential New Grading System



The GBI non-residential rating system for new buildings covers newly-built factories, offices, hospitals, universities, colleges, hotels and shopping complexes.

This system places the highest emphasis on energy efficiency and indoor environmental quality. The GBI believes that these two factors have the greatest impact on energy use and the wellness of the building's occupants and users.

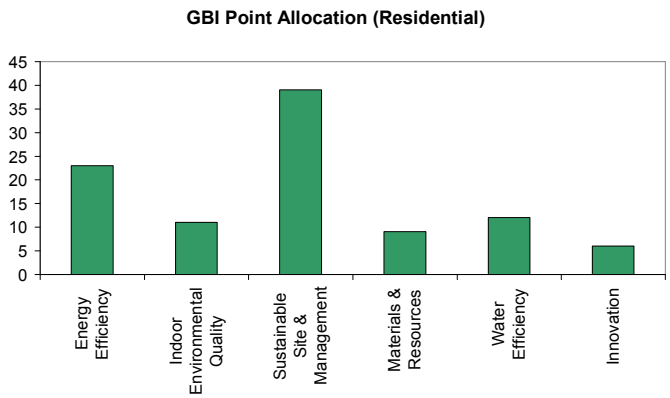
Non- Residential Existing Grading System



The GBI non-residential rating system for existing buildings covers the certification of existing factories, offices, hospitals, universities, colleges, hotels and shopping complexes to GBI status.

This system has similar points of emphasis as that for new non-residential buildings but was developed more recently in an attempt to encourage the owners of existing buildings to apply for GBI certification.

Residential New Grading System



The GBI residential rating system for residential buildings covers houses, apartments, condominiums, townhouses, semi-detached houses and bungalows.

This system places the highest importance on sustainable site planning & management, followed by energy efficiency. The GBI feels this will encourage developers and owners to consider the environmental quality of homes and their inhabitants.

Financial Benefits of Going Green

The government has offered a number of financial benefits for GBI-certified buildings. Some details are still being finalized, but the following have been announced.

1. Tax Allowance

Owners of GBI-certified buildings will be entitled to tax exemption equivalent to 100% of the additional capital expenditure incurred to obtain the certificate, which can be set-off against 100% of statutory income for each year of assessment and is applicable for new buildings and upgrades of existing ones.

2. Stamp Duty Allowance

Buyers of buildings and residential properties awarded GBI certificates bought from real property developers are eligible for stamp duty exemption on instruments on transfer of ownership of such buildings. The amount of stamp duty exemption is on the additional cost incurred to obtain the GBI certificate.

Other benefits include significant energy savings of up to 50%. Energy costs can reach 25% of a building's operating costs.

Costs of Going Green

The two main costs are the increased costs of construction, and the direct fees associated with the application itself.

1. Increased Construction Costs

This is difficult to estimate as it varies widely depending on the particular development and the level of certification applied for. Our analysis globally suggests that the additional cost may range from 3-15%. Malaysia has lower standard energy efficiency benchmarks than Singapore, so the cost to reach green standards is therefore higher.

2. Application Costs

Application fees for the GBI certification are based on the size of the development. They can range from RM 5,000 for a property with total gross floor area of less than 2,000 m^2 to RM 45,000 for buildings with total gross floor area of 50,000 to 100,000 m^2. Larger buildings are charged on an individual basis.

Other costs include any costs associated with completing the application forms themselves.

Other Green Rating Systems Used in Malaysia

In addition to the GBI, there are other green rating systems that have issued certifications to buildings in Malaysia. These include the US Green Building Council's LEED, possibly the best-known green rating system, and Singapore's BCA Green Mark.

BCA GREEN MARK

The BCA Green Mark Scheme was launched in January 2005 as an initiative to drive Singapore's construction industry towards more environment-friendly buildings. It is intended to promote sustainability in the built environment and raise environmental awareness among developers, designers and builders when they start project conceptualization and design, as well as during construction.

LEED was developed by the U.S Green Building Council (USGBC) and provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance through sustainable building.

CBRE
CB RICHARD ELLIS

Although the Green Building Index has proven to be popular among many local developers and is a positive step for the local real estate industry, the system is still very new and does not have the name recognition of systems such as the USA's LEED or Singapore's Green Mark. Additionally, there is a perception that the GBI standards are not as exacting as those for LEED or Green Mark.

As a result, we have seen some buildings in Malaysia opt for certification by one of these foreign ratings systems as well, with LEED appearing to be the favored option, especially for developers of Grade A office or luxury condominium buildings. Below is a listing of such buildings in Malaysia.

Both Ken Bangsar and GTower have achieved multiple accreditations.

Property Name	Type	Location	Rating System
1 First Avenue	Non-Residential	Bandar Utama	GBI
3Harmoni	Residential	Sunway SPK Damansara	GBI
S11 House	Residential	Petaling Jaya	GBI
Ken Bangsar	Residential	Sunway SPK Damansara	GBI, Green Mark
KRC Sales Gallery	Non-Residential	Kajang	GBI
Menara Worldwide	Non-Residential	Kuala Lumpur	GBI
PTM GEO Building	Non-Residential	Bandar Baru Bangi	GBI
GTower	Mixed-Use	KL Golden Triangle Area	Green Mark, LEED
348 Sentral	Non-Residential	KL Sentral	LEED
Matrade Centre	Mixed-Use	Kuala Lumpur	LEED
Lot G, KL Sentral	Mixed-Use	KL Sentral	LEED
The Intermark	Mixed-Use	Kuala Lumpur	LEED

Please note that the list above is not exhaustive. There are a number of other buildings for which we were unable to verify details, including Project U-Village and Ilham Baru (IB) Tower in Kuala Lumpur.

Sime Darby Property Bhd's Sime Darby Idea House, currently being built within its Denai Alam township in Shah Alam, is set to be the first carbon-neutral residence in Southeast Asia by virtue of green-building technologies including a recyclable roof system and kitchen cabinets, rainwater-harvesting system, energy efficient appliances, environmentally-friendly light bulbs and solar panels. This is one of two pilot projects for GBI certification in the residential category.

Additionally, according to a press release from Intel, KM 1, an Intel factory and office building in Kulim, Malaysia, achieved basic LEED certification in April 2010 for strategic improvements made to the 14-year-old facility.

Apart from green buildings, there are also other examples of green office facilities, such as the BHP Billiton Shared Services Centre Malaysia, which has achieved the Green Mark Gold certification for an office interior on the basis of its open layout office design and standardized fit-out and provision of energy efficient lighting systems and extensive recycling facilities and waste management.

Selected Green Properties in Malaysia

Below, we have taken a look at some of the more high-profile green buildings currently existing or under construction in Malaysia.

GTower, Golden Triangle

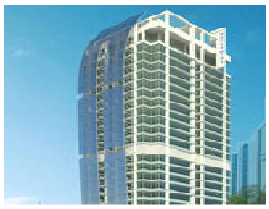
This 30-storey commercial development is both GBI & LEED-certified and consists of approximately 500,000 sft of office space, along with conference & function rooms, a boutique hotel, F&B and retail, recreational facilities, and a club & rooftop bar. The office building has been completed since mid-2009.

Ken Bangsar, Bangsar

This exclusive condominium with a glass facade design comprises a 15-storey block that houses 80 units. It offers panoramic views of the city from the peak of Bukit Bandaraya. The units facing the sun-rise will overlook the Petronas Twin Towers and Menara KL, while those on the western side will open to Damansara Heights and Bangsar itself. The building is both GBI and Green Mark certified.

PTM GEO Building, Selangor

Pusat Tenaga Malaysia (Malaysia Energy Centre) was officially Malaysia's first Green Building Index (GBI) Certified Building. Developed as a government-led pilot project, it was the most energy efficient office building in Malaysia and ASEAN when completed. It uses about a third of the energy of the country's previously most efficient building.



Menara Worldwide, Central Business District

Menara Worldwide is GBI-certified and combines the latest in integrated building intelligence with a spacious ultra-modern design. The development will have 273,000 sft of net lettable area with a 27-storey office block and two floors of penthouses.

Lot G, KL Sentral

This LEED-certified mixed commercial development will comprise a shopping mall of approximately 1 million sft and an office tower of about 420,000 sft, scheduled for completion in 2012. Also planned for the site are a shopping mall, a boutique business hotel and another two office towers.

The Intermark, Golden Triangle

This project, a redevelopment of Empire Tower, City Square, the Crown Princess Hotel and Plaza Ampang, will consist of a complete refurbishment of the retail podium and existing Vista Tower, the introduction of a Doubletree by Hilton, replacing the Crown Princess, and the construction of the LEED-certified Integra Tower, to be built on the former site of the Plaza Ampang.

Outlook

Looking ahead, we believe that demand for green buildings in Malaysia will continue to rise as environmental awareness grows and more companies embrace the practice of corporate social responsibility, with leading multinational (MNC) companies at the forefront of the trend increasingly looking to lease green office space wherever possible.

Another driver is the growing body of evidence demonstrating that green buildings make financial sense. Studies from mature markets such as the United States and Australia have found that developing green buildings can help landlords achieve higher values, fetch higher rents and enjoy higher occupancy rates than comparable non-green buildings.

However, the argument for greater investment in green buildings could be strengthened by greater incentives. As it stands now, there is no added financial incentive from the government for a company to pursue the higher grades of certification (e.g. silver, gold and platinum). One possibility is to offer greater tax breaks for buildings achieving the higher standards. Additionally, it has been suggested that tax breaks or other benefits could also be offered on the renewal of GBI certification, which must be done every three years. Incentives could also be offered to developers of green buildings and not just owners.

The move towards sustainability in the Malaysian real estate sector is anticipated to usher in a more challenging future environment for existing building owners striving to remain viable amidst a potentially large supply of newer and greener office buildings in the years ahead.

CBRE Asia Pacific Headquarters Goes Green

CB Richard Ellis (CBRE) Asia Pacific Headquarters, along with its Hong Kong office, moved from Central Plaza in Wanchai to Three Exchange Square in Central on 5 July, 2010. CBRE is focused on improving environmental performance in both the facilities it occupies and those it manages for clients, and reflecting this commitment to environmental sustainability, the new office space has been created to minimize the impact on the environment through the use of sustainable practices and building materials.

The new office fit-out has been managed by CBRE's own Project Management team and designed and constructed in accordance with Leadership in Energy and Environmental Design (LEED®) best practices. CBRE will implement a range of measures in the new office at Three Exchange Square to lower energy consumption and achieve greater efficiencies through sustainable practices, which will help to reduce the company's carbon footprint and operational costs.

The company also plans to pursue LEED® certification for Commercial Interiors for its new office.

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