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# Our own green rating for buildings

BY VENUS HEW

e've been lagging behind other countries in terms of design and construction of green buildings, but Malaysia is set to get a boost when it gets its own green rating system for commercial and residential properties in the first half of next year.

Regional peers like Australia and Singapore have had their own green rating systems in place for some time. Singapore has its Green Mark system while Australia's version is called Green Star - both based in part on the US' Leadership in Energy and Environmental Design (LEED) rating system, one of the world's most widely adopted green assessment tools.

Malaysia's version of a green rating system, dubbed the Green Building Index, is an initiative under the Malaysian Institute of Architects (PAM), which will act as one of the certification bodies for the new index along with the Association of Consulting Engineers Malaysia (ACEM).

PAM will be holding a preview of the rating system in conjunction with its Green Design Forum on Jan 3. The speakers include Sabah-born Senator Penny Wong, the minister for climate change and water in Australia, who will talk about "Moving to a lower-carbon future perspective from Australia".

The private initiative to establish a green building rating system came about as the industry could not wait for a government-led effort. The lack of such a locally developed system had forced some developers to look to Singapore to fill the void.

For example, Sunrise Bhd's 11



Chan: Energy costs will never come down... it is therefore important to build 'green'

Mont'Kiara recently became the first residential development in Malaysia to receive the Building and Construction Authority (BCA) of Singapore's Green Mark Certified Award (provisional). GTower Sdn Bhd, a wholly-owned subsidiary of Goldis Bhd, is another local company to adopt our neighbour's green rating system. Its GTower building, being developed at the crossroads of Jalan Tun Razak and Jalan Ampang, became the first commercial building in Malaysia to receive Singapore's Green Mark Gold certification (provisional) award in March 2008.

### Affordable alternative

With the introduction of Malaysia's Green Building Index, builders will now have a more cost-effective alternative in getting a green certification for their buildings, says Chen Thiam Leong, a



Teo: We will invest in energy-efficient equipment if the payback period and costs are justifiable

prime mover of the local green rating system and ACEM past president.

Though the registration and professional fees charged for the Green Building Index certification has not been finalised, Chen says it will "definitely be lower" than those charged by the certification bodies in countries such as Singapore, Australia and the US.

For comparison, LEED registration for a 30-storey building costs RM100,000 while the professional fee is at least RM500,000. Likewise, the registration fee charged by the BCA in Singapore for a new building of less than 14,000 sq m is S\$9,975 (RM24,212), says Chen.

The Green Building Index is tailored specially for local properties, taking into account the environmental issues in Malaysia, says PAM past president Tan Loke Mun, who also helped to develop the green rating system.

The six categories covered in the Malaysian green rating system for commercial properties include sustainability of the development site, water efficiency, material resources, energy efficiency, indoor environmental quality and innovation in design. It will also be extended to the refurbishment of existing buildings.

For residential properties, the categories covered include site selection and planning, energy efficiency, indoor environmental quality, materials and resources, water efficiency and innovation in design.

The proposed Green Building Index has received the thumbs up from the Real Estate and Housing Developers' Association Malaysia (Rehda). National council member Datuk Chan Sau Lai says, "100% support will be given to Malaysia's first-ever green rating system." Chan says Rehda will seek to ensure its new headquarters building, scheduled to be completed in early 2010, complies with the guidelines stipulated in the green rating system.

"As a leader and prime mover in the industry, Rehda has to set a good example by embracing the green guidelines." Chan adds that the guidelines aim to reduce energy consumption, which will ensure long-term benefits as the initial effort and added cost will be translated into lower cost of running the business.

Likewise, he says residential properties with green rating compliance will be more desirable to potential house buyers and those seeking to rent, given the lower utility bills and healthier lifestyle. "Energy costs will never come down,



Chen: There shouldn't be any questions on the system's credibility... it is developed by local design experts

it is therefore important to 'build green' with the right technology and design, without sacrificing our lifestyles," says Chan, who is also the executive chairman of Beneton Properties Group.

Bandar Utama City Corp Sdn Bhd director Datuk Teo Chiang Kok says the company had been waiting for the Malaysian-developed green rating system. "The new rating system is relevant and tailored to Malaysia's operating environment as compared with other countries' green rating systems that support different cost parameters."

Teo says Malaysia's own green rating system will benefit the local property and construction industry as it focuses on the design and development of cost-efficient buildings which bring long-term benefits to the developers.

The past president of Rehda says he will apply for the "green" certification for all his company's existing buildings such as 1 Utama shopping centre, Plaza IBM, and 1 First Avenue which is scheduled to be completed end of next year.

# **Gaining recognition**

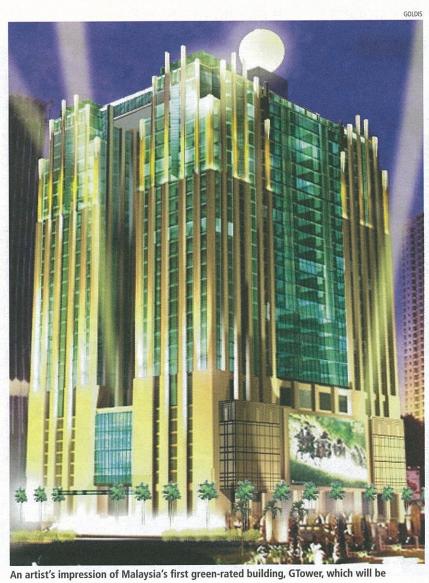
ACEM's Chen says there should not be any question on the credibility of the local green rating system as it is developed by "local experts in the architectural and engineering profession who design many of the buildings in Malaysia, as well as some who are involved in designing buildings overseas."

"We are confident the property developers in Malaysia, especially the top 10 property players, will subscribe to the system when it is ready," says PAM's Tan, adding that this would set a good example for other developers which are in the process of setting up new buildings.

But will developers take to the new locally developed green building rating system? It will depend on how relevant the new green rating system is, says Colin Ng, Goldis' head of corporate investments and GTower Sdn Bhd executive director.

"It depends on whether it is applicable to a tropical environment and whether the standards are internationally acceptable. It will also depend on how stringent the standards are," Ng tells City & Country when asked if GTower would seek certification under Malaysia's new green rating system for its next building project.

He says the GTower development adopted Singapore's Green Mark standard because it was relevant to tropical environments, was based on the LEED standards



completed mid next year

LEE LAY KIN/THE EDGE

and has a stringent annual auditing of the building to ensure compliance. "In addition, all new buildings in Singapore have to have a Green Mark certification and it is enforced strictly by the government," adds Ng. Scheduled for completion mid-next year, GTower is a unique development integrating offices, a 180-room five-star boutique hotel and a club.

#### Walking the talk

Even though the promoters of Malaysia's first-ever green rating system for buildings are bullish the system will gain acceptance, the reality is that while local developers may pay lip service to the need to go green, it will take a lot of convincing for them to develop truly green build-

ings because of the heavy price that needs to be paid.

Unlike GTower, local developers may balk at the steep costs of making their buildings green. Ng estimates it will cost about 20% more to make the GTower building green as compared with normal construction. "We see it as an 'investment' rather than a cost. This is in line with Goldis group's corporate social responsibility. Resources are getting scarcer and therefore, resource prices such as oil has upwards pressure.

"Also, going green makes us a carbon positive development. We have calculated that our green investment will equate to saving 9,125 trees per annum. It's our small way of being a responsible corporate citizen and

showing the way that a high-tech, modern skyscraper can be built in a less damaging manner to the environment," he explains.

Goldis' decision to go green for GTower is also partly based on expected returns on its investment in terms of cost savings arising from energy usage savings of approximately 22% per annum and the like. "We calculate it would take approximately 2.5 years to payback the incremental green investment," he adds.

Likewise, Bandar Utama City Corporation's Teo says the company would be willing to incur the higher cost of going green if the payback period is within five to seven years, and if the additional cost fell within the 5% to 15% bracket of the total



Ng: It will take about 2.5 years to pay back the 20% incremental investment cost

project development cost.

"Despite the higher capital outlay, we will invest in energy-efficient equipment in all our commercial buildings, now and in future, if these criteria are met," says Teo, adding this would include refurbishing its existing buildings in order to be rated as green buildings.

He says that the installation of highly efficient water pumps and electrical transformers, for which the company paid a premium of 10% to 12%, at its 1 Utama shopping centre has proven to be cost saving. As a result, the popular shopping mall in Bandar Utama enjoys a 15% savings in its annual electricity bill, amounting to an average of RM2.5 million, while its rain harvesting system



Tan: We are confident developers in Malaysia, especially the top players, will subscribe to the system

shaves off approximately 30% from its annual water bills.

For its residential developments, Teo reveals that the company has taken the initiative to install a water harvesting system for all 300 units of terraced houses in its Bandar Utama 6 project. The company invested about RM800 for each unit to install the system, which provides the residents with substantial savings on their water bills.

Though the potential benefits of environmentally friendly buildings are many, it remains to be seen if Malaysian developers are willing to pay the higher costs incurred. The affordable Malaysian-developed Green Building Index will likely help local developers gauge if they are ready to go green.

# Proposed Green Building Index in Malaysia vs other rating systems

Name	LEED (Leadership in Energy and Environmental Design) USA	GREEN STAR Australia	GREEN MARK Singapore	GREEN BUILDING INDEX Malaysia
Year	1996	2003	2005	2008
Assessment Criteria	1. Sustainable site	1. Management	1. Energy efficiency	1. Energy efficiency
	2. Water efficiency	2. Transport	2. Water efficiency	Indoor environmental quality
	3. Energy and atmosphere	3. Ecology	3. Environmental protection	Sustainable site and management
	4. Materials and resources	4. Emissions	Indoor environmental quality	4. Materials and resources
	5. Indoor environmental quality	5. Water	5. Other green features	5. Water efficiency
	6. Innovation and design/	6. Energy	6. Innovation	
	construction process	7. Materials		
		8. Indoor environmental quality		
		9. Innovation		