

on for buildings to become eco-friendly, and some of them are showing that it is possible to be green and hip.



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Get set for a new trend to take root in HDB flats, giving them the cool factor. Residents will soon be moving into Singapore's first green public housing project. Treelodge@Punggol, slated for completion by the end of the year, is the island's first "eco-precinct". At least 90 per cent of the 712 units have already been taken up.

Prices for homes in the seven 16-storey blocks in Punggol New Town range from \$139,000 for a three-room flat to \$383,000 for a five-room loft unit.

The latest cutting-edge public housing developments such as Pinnacle@Duxton may have the wow factor in terms of towering 50-storey blocks and contemporary design, but Treelodge@Punggol has cool, planet-friendly features that are hip and help home owners save on utilities bills.

Sure, there are plenty of trees in the landscaped grounds but Treelodge@Punggol's greenie vibe includes the infrastructure: Less electricity will be used to keep the place cool in the hot weather, for example. The design makes the most of wind direction and shade from the sun (see other story).

The common corridors use sustainable energy in the form of solar-powered lighting, and the project earns extra greenie points for its use of recycled rain-water to clean common areas.

Even better, HDB says the savings on utilities costs will be poured back into maintaining the precinct.

This heartland helping-hand-for-the-planet is the first public housing project to obtain the Green Mark Platinum award, given by the Building and Construction Authority (BCA).

It is among several projects that have recently been awarded certifications under the BCA's Green Mark Scheme, which rates the environmental friendliness of buildings.

The five-year-old benchmarking scheme is part of a push to make eight out of 10 Singapore buildings eco-friendly within the next 20 years.

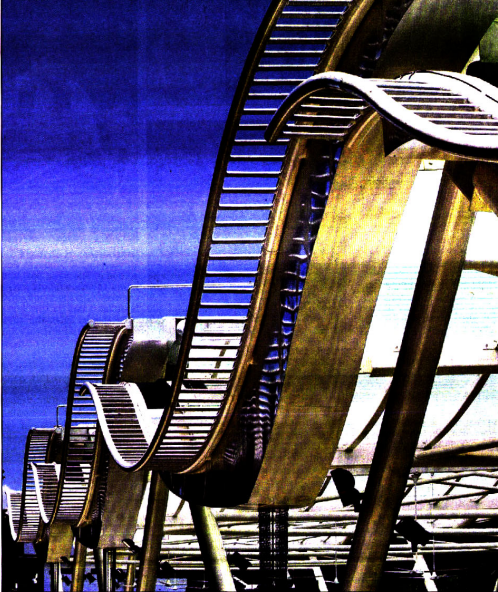
By 2030, 80 per cent of all Singapore buildings must be certified by the scheme. So far, 524 properties, or 8 per cent, have made the Green Mark grade. Since 2008, all new buildings have been required to attain the minimum Green Mark standard.

Based on an overall assessment of five key criteria including energy and water efficiency, buildings are given one of four ratings - Green Mark Certified, Gold, Gold Plus and Platinum.

Gold Plus and Platinum projects have to meet additional requirements, such as having energy savings of at least 25 per cent over current building codes.

Last April, BCA introduced a \$100-million incentive scheme to pay any private building owner up to 35 per cent of the work required to retrofit green fea-

GREEN WAVE



With its long way roof (far left) and clean design, the Aquatic Science Centre (left) in Sungei Ulu Pandan stands out amid the residential buildings in the vicinity. Built with few walls, which aids cross-ventilation, the 6,600 sq m facility uses natural light in more than 85 per cent of its space.



Bar and bistro Boomarang (above) is the only food-and-beverage outlet in Asia to get a prestigious American LEED award for its green measures, such as donating waste cooking oil to be converted into diesel. PHOTO: BOOMARANG

tures. A total of \$2 million has been committed to nine projects so far.

Treelodge@Punggol is among 49 buildings that have achieved Platinum status, the highest mark.

The Aquatic Science Centre in Sungei Ulu Pandan, a research centre devoted to examining water quality, is in the final stages of attaining the Gold Plus mark. It will open at the end of this month.

It is immediately striking because of its 95m-long wave-like fibreglass roof. Its design not only looks good, but also helps collect rainwater.

Even more striking for many Singaporeans will be one of the interior features - there is hardly any air-conditioning: Air-conditioning is restricted to just 7 per cent of the building, with other rooms cooled by ceiling fans or natural ventilation.

It is a project by the Singapore-Delft Water Alliance (SDWA), a collaboration between PUB, the National University of Singapore and Dutch-based research institute Deltares.

Senior architectural associate Alan Lai of Surbana Consultants, co-designer of the building, says there is a "strong dialogue" between the facility's form and its intended function.

He notes: "Its main objective, which is water-based research, is carefully crafted into its structure. It is also an environmentally responsible building that makes use of natural ventilation and light."

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Mall cuts down the heat

From previous page

Orchard Road may be famous for its shopping malls but, surprisingly, only one - 313@Somerset - has bagged the Green Mark Platinum.

Green features include its facades of low-emissivity glass, which can cost five times more than normal glass but cuts down heat, and the collection of rain-water for flushing toilets.

Tenants have to sign "green leases" committing them to achieving environmental targets. For example, they must use energy-efficient lighting and power equipment. Their energy use is monitored, with incentives given for reducing energy consumption.

Retailers also have to separate waste products into glass, plastic and such. These are collected by the mall's staff and sent to the waste management centre.

Mr Adrian Yeo, operations manager of mid-priced food chain The Asian Kitchen, which has an outlet, Kamado Japanese Wood Fire restaurant, at the mall, says: "It does require extra effort to separate the waste products, especially during busy periods. You need to have separate bins as well."

But he adds: "Being green means everyone should put in the effort. By contributing this little bit, I hope it helps."

Ms Michelle Lee, spokesman for mall owner Lend-Lease Retail Investments, says besides reducing the building's carbon footprint, going green has financial benefits, such as "reducing the centre's operating costs and safeguarding against future energy price increases".

"Other benefits include providing a safe environment to users of the mall and the opportunity to lead sustainability education for our retailers and customers."

The eco has landed at other places around town, too.

Boomerang, a bar and bistro which has been operating at Robertson Quay for two years, was recently given a coveted LEED Silver Award. LEED (Leadership in Energy and Environmental Design) is a programme in the United States for the design, construction and operation of high performance green buildings.

Its requirements are stringent and Boomerang is the only F&B outlet in Asia to get the award.

More than \$1.5 million was spent on fitting the eatery, including its winning



Tenants at 313@Somerset, which began operating last December, embark on eco-friendly measures such as using energy-efficient lighting. PHOTO: 313@SOMERSET

green features. These include the fact that during construction, 80 per cent of building waste was recycled. And all waste cooking oil is donated for conversion into diesel, which translates to an annual reduction of carbon emissions by about 500kg.

Australian owner Martin McGettigan says: "By striving for greener, efficient building design and operations, Boomerang continually contributes to a healthier environment."

While a building may be equipped with green features, its inhabitants still play the most important role, says Treelodge@Punggol's project director Ng Bingrong. "It is still up to the user to make full use of the green facilities, to contribute to a sustainable living environment."

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