

Eco-design from scratch

The National University of Singapore yesterday launched SDE4, which is designed to have net-zero energy consumption. This means the building produces more energy than it consumes – by harnessing solar energy, for instance. The six-storey building is the first net-zero energy building in Singapore to be built from scratch rather than retrofitted, and has a number of environmentally friendly features.

Solar panels
1,225

solar photovoltaic panels installed on the roof will provide more than 500MW-hours of energy per year, enough to power about

110 four-room Housing Board flats for a year.

Hybrid cooling system

An innovative cooling system not only provides air-conditioning but also supplies fresh air at higher temperatures and humidity compared with a conventional air-conditioning system. This way, rooms will not be overly cooled. Ceiling fans help to circulate the cool air.



"Floating boxes"

The rooms are designed to maximise ventilation and natural lighting. The 'floating box' structure creates space for natural breeze to flow into the rooms. This helps to cut back on the need for air-conditioning.

