

Green buildings are good for health too

GREEN buildings are not just a boon to the environment, they keep people healthier too.

Those who work in such buildings are less likely to suffer from fatigue and skin irritation, or other ills of “sick building syndrome”, according to a new Building and Construction Authority (BCA) study, which shows that the benefits of such buildings stretch beyond energy-saving.

Compared to regular buildings, green buildings are better equipped to filter out more pollutants as well as harmful bacteria and fungi. The result – workers are 60 per cent less likely to get headaches, for instance.

Khoo Teck Puat Hospital, a Green Mark Platinum building – the highest rating for buildings in Singapore – has a cafe where the air-conditioning is turned on only when the temperature hits 34 deg C.

“Initially, staff were not used to a non-air-conditioned place due to the hot weather. But of late, our staff told us that because they are mostly in air-conditioned areas, they look forward to having their meals in a natural setting,” said Ms Yen Tan, its chief operating officer.

The findings, released this week at the opening of Green Building Week, will help BCA in its efforts to make more buildings here environmentally and health friendly.

BCA has tied up with the Health Promotion Board to develop a new Green Mark scheme to encourage healthy lifestyles at workplaces, with features such as indoor greenery and access to healthier food and drink options. The scheme will be rolled out next year.

Said BCA chief executive Hugh Lim: “As we bring it forward, we would like to place more balanced emphasis on not only energy savings but also the well-being and health of occupants, and associated with that is the quality of air they enjoy inside Green Mark buildings.”

Associate Professor Tham Kwok Wai from the National University of Singapore’s Department of Building, who conducted the study with BCA, said it provided “hard evidence” the Green Mark certification for buildings has worked, and that their occupants were healthier and more productive. Buildings with the Green Mark have environmentally sustainable designs such as carbon dioxide level sensors.

The study was conducted over 3½ years on eight Green Mark-certified office buildings and six office buildings that had no certification.

It found disparities in the buildings’ indoor levels of PM2.5 — microscopic particles harmful to human health. The green buildings were better able to keep PM2.5 particles and other fine particulates such as bacteria and fungi out, thanks to better filters.

Surveys conducted among about 360 occupants of both types of buildings found those working in Green Mark-certified buildings were more satisfied with their office’s temperature, humidity, lighting, air quality and indoor environment.

The findings will be used to tweak the existing criteria for BCA’s Green Mark schemes.

For a start, it will pilot a new set of criteria for existing non-residential buildings for one year. This will place greater emphasis on the use of smart technologies, for instance, requiring buildings to have smart systems to monitor air quality. Only about one in three buildings here is Green Mark-certified. BCA aims to raise that to 80 per cent by 2030. It hopes that sharing data on the benefits would spur more building owners to invest in green upgrades.

**Khoo Teck Puat Hospital...
A Green Mark Platinum
building.**
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