

# BUILDgreen

Building and Construction Authority

We shape a safe, high quality, sustainable and friendly built environment.

ISSUE 12/2017



## GREEN MARK IN CHONGQING, VIENTIANE AND YANGON

CARRYING THE GREEN BUILDING  
MISSION FAR AND WIDE

## BCA AWARDS 2017

RECORD 352 BCA GREEN MARK  
AWARDS ACCORDED THIS YEAR

## BCA GREEN MARK SCHEME FOR EXISTING NON-RESIDENTIAL BUILDINGS GM ENRB: 2017

# COOL NEW SOLUTIONS MAKING SUSTAINABILITY MORE AFFORDABLE AND ACHIEVABLE

In Singapore's tropical climate, air-conditioning is almost indispensable in our buildings, and is usually the most energy-intensive component. Now, innovative new business models might make it easier and more affordable for owners to keep their systems up-to-date and efficient.

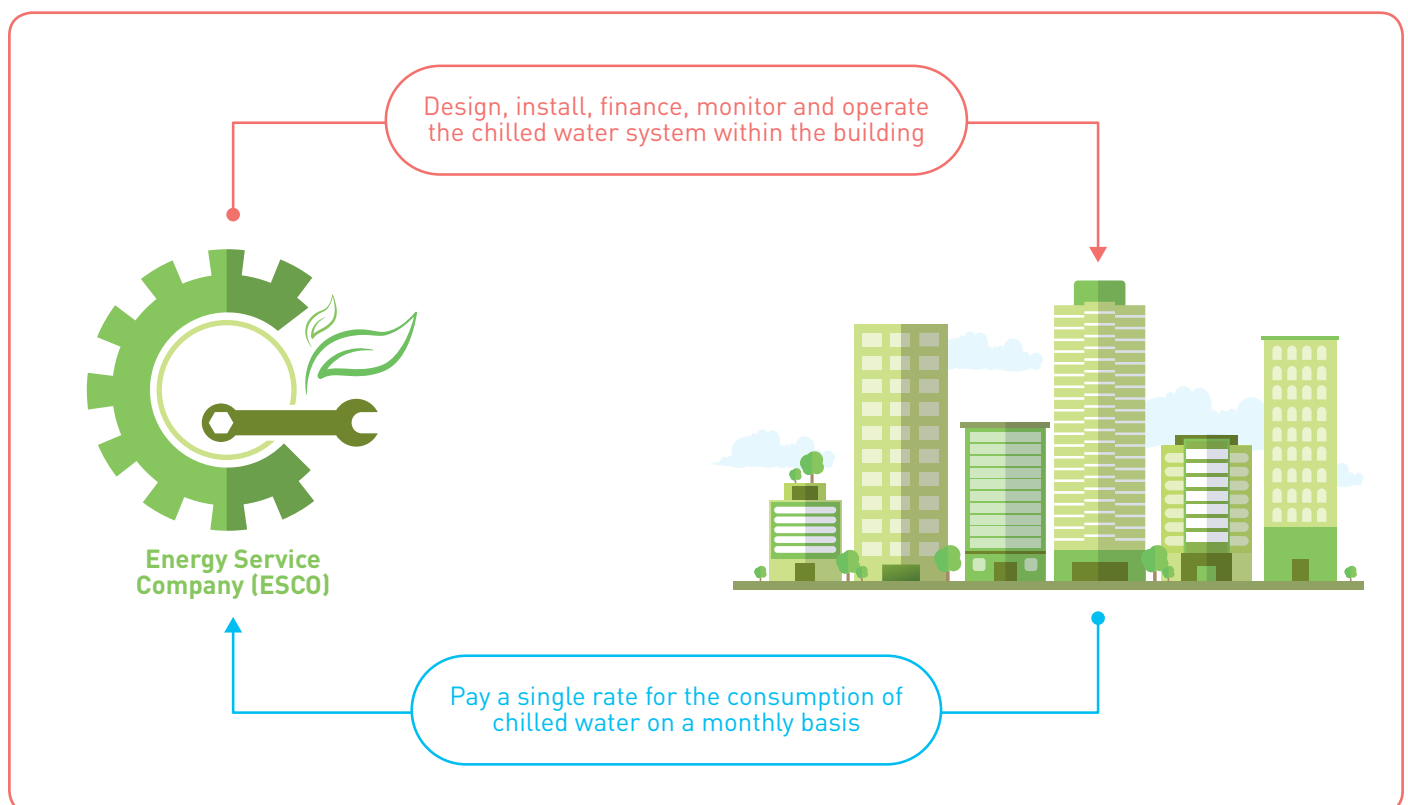
For most tropical countries, such as Singapore, the use of air-conditioning is part and parcel of our daily life. However, heating, ventilation and air-conditioning (HVAC) systems account for 40-50% of a building's energy consumption. Despite the potential benefits from retrofitting an air-conditioning system for greater efficiency, some building owners may still not be keen to undertake such a project due to cost and operational issues.

## AIR-CONDITIONING AS A SERVICE

In June this year, Chinatown Point – a shopping mall cum office building which opened in 1993 – began using its brand new, state-of-the-art air-conditioning system provided by energy service company Kaer Pte Ltd. A little different from usual air-conditioning retrofits, the system used by Chinatown Point is known as "air-conditioning-as-a-service", an innovative green building solution that bears certain similarities to software-

as-a-service (SaaS) distribution models used in information technology (IT) circles.

What Chinatown Point has done was to outsource its entire chilled water production to Kaer, allowing the SGBC-accredited energy performance contracting (EPC) firm to design, install, finance, monitor and operate the chilled water system within the building for the next 10 years. As opposed to pumping in resources, capital and manpower to manage and upkeep the chilled water system from before, Chinatown Point now only needs to pay a single rate for the consumption of chilled water on a monthly basis. The building does not have to pay for repairs, maintenance, electricity and all the other costs associated with the chiller water system. The new Kaer Water system also runs at a chiller efficiency of 0.60 kW/RT, which means that the system operates at the established BCA Green Mark Platinum benchmark for chiller efficiency.





Best of all, the new system did not cost Chinatown Point a single dollar to implement and install; anything associated with the new chilled water system was taken care of by Kaer.

#### **LEAVING IT TO THE PROS**

This means that the building no longer has to worry about its air-conditioning system, since it is now in the hands of professionals who are committed to ensuring the maximum operational efficiency of the chilled water system. This also frees up resources for Chinatown Point. The building owners can now commit more resources to their strategic business functions and core activities while essentially outsourcing non-core activities to a team of industry professionals.

“This innovative business model, which reduces the cost of utilities while ensuring the performance of the air-conditioning system at the same time, will help to significantly improve building efficiency,” said Mr Tan Swee Yiow, President of the Singapore Green Building Council (SGBC). “As the industry continues towards the national goal of greening 80% of our existing buildings, we need more of such innovative solutions as we forge ahead in our journey towards greening the built environment.”

Kaer Pte Ltd is one of close to 20 EPC firms certified by the Singapore Green Building Services (SGBS) certification scheme, the only programme in Singapore that recognises building consultants and organisations for their commitment to the green building movement. Engaging the services of SGBS-accredited EPC firms can help green building projects accrue bonus points under the BCA Green Mark Scheme, especially if the scope of work can guarantee operational system efficiency.

#### **GOING GREEN WITH ZERO CAPITAL**

Additionally, building owners looking to green their buildings for greater energy efficiency can consider looking into the SGBC-BCA Zero Capital Partnership Scheme. The Scheme provides the building owner with the expertise of an SGBS-accredited EPC firm. It serves as a one-stop solution for both minor and major retrofits, provides financing options and also facilitates the application of relevant grants or incentive schemes to fund the retrofit works. Through the Scheme, the building owner can work with a proven professional firm to achieve greater energy efficiency with zero capital outlay.

As more innovative green building solutions come into play, building owners will have a wider selection to choose from to help them advance towards greener, healthier buildings that are more affordable.