



Cooling as a Service
Refresh the planet

Case Study

- **New project**
- System installed
- Established/Ongoing project



CaaS in the New Heart of Kuala Lumpur: Malaysia 's TRX Exchange

Asia's leading Cooling as a Service (CaaS) provider Kaer is supporting Lendlease in the development of the 'The Exchange TRX', part of Kuala Lumpur's new financial business district. The Exchange TRX represents Kaer's largest project to date and demonstrates the market success of the CaaS business model for commercial buildings.

Region

Kuala Lumpur, Malaysia

Sector

Commercial (Shopping mall, Office and Hotel)

Retrofit or new

New

Project size

7200 TR

Technology

Water cooled chillers

Partners

kaer

SET ALLIANCE

Background

Kaer is a Singapore-based company that introduced air conditioning to Asia in the 1950s and pioneered Cooling-as-a-Service (CaaS) in 2013 after observing the exponential demand for services rather than products. This shift had significant effects on customer experience, technological advancements, and improvements in sustainability metrics such as energy efficiency and resource usage.

In just five years, CaaS became Kaer's core business, and the company now serves over 20 million square feet of space across the region.

Whilst Kaer has operated in Malaysia for the last two decades, the Exchange project constitutes the first implementation of CaaS in the country.

The Exchange TRX is a new 17-acre lifestyle destination that sits within the Tun Razak Exchange, Kuala Lumpur's new financial business district.

It is the largest integrated development to be delivered in Asia by Lendlease, a globally integrated real estate group, and will feature a shopping mall, a 10-acre rooftop park, six premier residential towers, a low-rise campus-style office and Malaysia's first Kimpton® Hotel & Restaurants.

The Need

The project was looking at cooling solutions for multiple parts of the complex, comprising a mall of 1.3 million sqft with adjacent hosting and hotel space.

As a major business, financial and lifestyle hub being developed in the heart of Malaysia's capital and largest urban area, The Exchange TRX has particular ambitions.

In this context, and while analysing available offerings, Lendlease selected Kaer's CaaS solution.

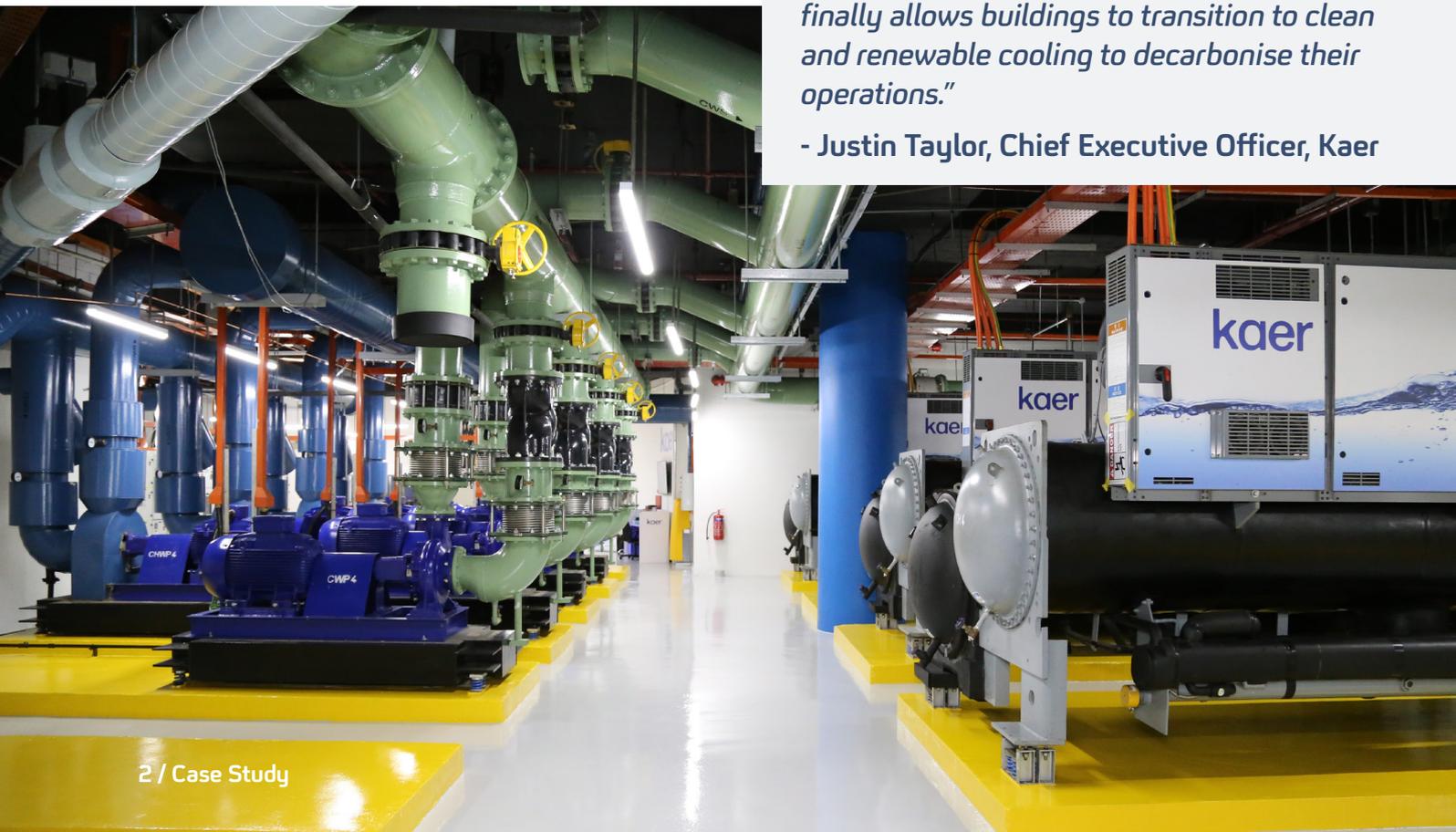
The partnership with the Singapore-based company represents a commitment to driving more energy-efficient cooling and supporting the decarbonisation of the building sector.

Malaysia has pledged to reduce its emissions intensity by 45% of GDP by 2030 compared to a 2005 baseline and achieve carbon neutrality by 2050.

The Exchange TRX is the latest building to join Kaer's portfolio and is the second from Lendlease who first adopted CaaS to deliver sustainable cooling to the Paya Lebar Quarter in Singapore in 2017.

"We believe CaaS is the business model that finally allows buildings to transition to clean and renewable cooling to decarbonise their operations."

- Justin Taylor, Chief Executive Officer, Kaer



The Solution

Kaer's offering includes high-efficiency water cooled chillers using chemical-free water treatment. To maximise resource efficiency, a single common plant serves the three buildings. But the core of Kaer's innovative solutions for this project resides in its integrated proprietary machine learning software 'brIQs'.

This software utilises Kaer's extensive centralised data library to train Kaer's machine learning algorithms. These algorithms continuously analyse and improve the performance of all the systems. By using data from similar buildings and adapting to local weather patterns, Kaer can deliver the best levels of reliability and performance from the onset of projects, ensuring improvement over time.

Through the unique Kaer Connect web portal and app, the solution is also able to offer minute-by-minute carbon reporting and precinct-wide condition monitoring, providing comprehensive insights for more efficient and sustainable operations.

Kaer is set to deliver a best-in-class customer experience alongside platinum levels of sustainability to support the development's Green Building Index rating.

This more sustainable model will minimise cooling-related carbon emissions and the system will use 100% recycled water from the local area to further reduce the environmental impact of cooling.

"The Exchange TRX is one of Malaysia's most progressive developments and is set to become a leading lifestyle hub in Asia. After a wonderful experience with Paya Lebar Quarter in Singapore, this is a big opportunity for us to learn and build on what we have done to maximise building performance and reduce the environmental footprint."

- Justin Taylor, Chief Executive Officer, Kaer





“Demand for cooling continues to grow and will triple by 2050. There is an urgent need for businesses to adopt cleaner and more sustainable cooling options like CaaS. As we work towards driving CaaS as the model of choice for Asian economies, we are happy to count Lendlease as a partner who shares our mission to accelerate the transition towards a low carbon and climate-resilient future.”

- Justin Taylor, Chief Executive Officer, Kaer

Benefits of CaaS

Traditionally, building owners purchase, install and run cooling systems, and are responsible for dealing with ongoing maintenance and operational costs. Under the CaaS model, customers simply dictate the cooling conditions they require and Kaer delivers this as and when needed.

Kaer assumes all financial investments and operational responsibilities, while building owners purchase cooling at a fixed \$/RTH (Refrigerant Ton Hour) rate on a pay-as-you-use basis.

Kaer's CaaS model is designed to better position buildings to qualify for green accreditations such as the Malaysian Green Building Index, in addition to Singapore's Green Mark and Leadership in Energy and Environmental Design (LEED) certifications by the U.S. Green Building Council (USGBC).

Contract Information

Length: 15 year contract

Price structure and unit: Fixed \$/RTH (Refrigerant Ton Hour) rate on a pay-as-you-use basis, including electricity and water

Financing: Financed by Kaer

Contact Information

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