

Building & Industry

NOVENCO 

SCHAKO Group

Energy-efficient NOVENCO[®] ZerAx[®] fans installed at the zero-energy Keppel Bay Tower in Singapore

Keppel Bay Tower is a leading commercial building in Singapore and the first in the country to achieve the Green Mark Platinum (Zero Energy) certification from the BCA. The 18-storey tower, owned and operated by Keppel Land, combines sustainability and high-performance building operation.

Five technologies selected for next-level energy performance

In 2018, the BCA awarded Keppel Land more than one million USD under the GBIC programme to test new energy-efficient technologies and reduce building energy use by an additional 20%. Out of more than 50 applicants, only five partners were selected.

NOVENCO Building & Industry was chosen to replace an existing centrifugal fan in an AHU with a high-efficiency NOVENCO ZerAx axial fan. Measurements showed significant energy-saving potential, and the uncomplicated installation made ZerAx the ideal choice.



Before retrofit- centrifugal fan



Keppel Bay Tower, Singapore

Retrofit completed in under 10 hours

The tower integrated several advanced technologies, including the EC+ concept with NOVENCO ZerAx fans, high-efficiency motors and Danfoss VFD®s.

The work with the retrofit was completed in less than 10 hours. Independent testing by NTU verified a 43% energy saving from the ZerAx EC+ solution.

This improvement cut the annual energy consumption of the building by 22.3%, outperforming the 20% GBIC target. Keppel Land now replaces the remaining 21 centrifugal fans with NOVENCO ZerAx fans.

Facts:

- 43% energy savings
- More than 20 years lifetime
- Very low noise levels
- Easy retrofit process



After retrofit- NOVENCO ZerAx axial fan