

Keppel Bay Tower – Singapore's first commercial development to be fully powered by renewable energy

The BCA Green Mark Platinum building will power its operations fully, as well as the offices of tenants in the building, by renewable energy including through the purchase of Renewable Energy Certificates as well as the installation of an assembly of photovoltaic (PV) panels onsite

Reduction of over 2,400 tonnes of carbon emissions per annum

Purchase of Renewable Energy Certificates generated from PV panels installed in Keppel Offshore & Marine's yards in Singapore. Together with the installation of onsite PV panels at Keppel Bay Tower, these initiatives will result in a **reduction of over 2,400 tonnes of carbon emissions per annum** – an amount which would otherwise require about 12,000 trees to absorb over about 50 years

Overall energy savings of 20% or 1.5 million kWh/year

which is equivalent to the amount of energy required to power more than 250 five-room HDB flats for a year

Energy Efficiency Index (EEI) of 115 kWh/m² per year

An average Green Mark Platinum building has an EEI of 145 kWh/m² per year

Smart, eco-features of Keppel Bay Tower

1 PV Panel System allows the harvesting of about 100,000 kWh per annum

2 Energy Efficient Air Distribution System features an air handling unit fan which is about 25% more energy efficient than other best-in-class technologies

3 Demand Control Fresh Air Intake System utilises integrated sensors to regulate fresh air intake according to indoor activities, optimising energy usage for better thermal comfort and indoor environmental quality

4 Intelligent Building Control System employs a high precision physics-based simulation engine to improve data analytics and control

5 Cooling Tower Water Management System utilises a patented solution that reduces cooling tower water usage and eliminates the need for chemical water treatment

6 Smart Lighting System utilises occupancy sensors which allow seamless transition in lighting levels according to building occupancy

