



A PREMIUM SERVICED APARTMENT ON ORANGE GROVE ROAD SHOWS ITS GREEN COMMITMENT BY INSTALLING A TRI-GENERATION PLANT AND SIGNING A SEVEN-YEAR ENERGY SAVINGS PERFORMANCE CONTRACT.

Treetops Executive Residences, which promises a resort-style living in the heart of the city, received the BCA Green Mark Platinum rating in 2012 for its sustainability efforts. Its green journey included recently installing a tri-generation plant and signing an Energy Savings Performance Contract.

Power from Within

The tri-generation plant consists of three 200KW diesel generators operating on synchronisation to supply power to the entire building. Waste heat from exhaust and jacket water are used to run the absorption chiller which in turn produces chilled water for use within the building and domestic hot water for the estate.

After its commissioning, the plant reduced the energy bill by a significant 27% in the first month. Plant efficiency has also improved by about 40%, from 0.76 kW/ton to 0.45 kW/ton. As fine tuning works are still in progress, Treetops expects to achieve an energy improvement of 49% against its original energy consumption, or a 33% decrease of total building electricity consumption ultimately.

Sustained Savings for Seven Years

Treetops has also signed a seven-year Energy Savings Performance Contract with Comfort Management, an air conditioning, mechanical and electrical specialist focusing on engineering for energy conservation.

Comfort Management helps Treetops simplify the procedures to adapt energy-efficiency retrofits with little or no investment outlay, under the contract. It also installed digital energy meters to monitor the daily energy consumption of chillers, pumps, cooling towers, AHU, car park fans and other building equipment. These meters are wired to a central computer where the energy

consumption data is accessed remotely on a daily basis for deviation analysis.

By monitoring energy usage, Comfort Management guarantees that Treetops will sustain the energy efficiency throughout the seven-year contractual period so that it can renew the Green Mark certification in 2015.



NEED FINANCING FOR ENERGY-SAVING RETROFITS?

The energy-efficiency retrofit works at Treetops were partly funded by two BCA schemes. While the Green Mark Incentive Scheme for Existing Buildings is now fully committed, owners of existing buildings requiring financial assistance can still apply for the Building Retrofit Energy Efficiency Financing scheme. More information can be found at www.bca.gov.sg/GreenMark/breef.html.