

# Ibis Novena Hotel, Singapore



### SUMMARY

The Ibis Novena Hotel Singapore was awarded BCA Green Mark Platinum Award by the Building Construction Authority of Singapore in March 2015. It is an international 3 star, 10-storey, 241 room hotel completed in April 2011. It sits on four contiguous freehold sites located in the heritage-rich Balestier and Novena area. The hotel is within ten minutes walk to Novena MRT station, just 6 stations away from the Central Business District in Raffles Place and 2 stations away from the main shopping district at Orchard Road.

### TYPE AND SCALE

- Use: hotel type
- GFA: 68,966 sqft /241 rooms
- Levels: 10 storey
- Car Parks: 24 lots
- Original Completion date: April 2011

### TIMEFRAME

- Project start date: Jan 2015
- Construction start date: Aug 2015
- Target completion date: Dec 2015

### COST

Ongoing but estimated to be in the region of S\$500,000 with a payback period of 3 years on capital expenditure.

### MAIN STAKEHOLDERS

- Owner: An SPV owned by Alpha Macro Trends Fund II, a fund managed by Alpha Investment Partners Ltd
- The ESD cum design and build contractor is Comfort Management Ltd

### INFORMATION SOURCES

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### DESCRIPTION

The Ibis Novena Hotel Singapore was initially constructed with a Variable Refrigerant Volume (VRV) air-cooled air-conditioning system. In 2015, the owner undertook a comprehensive retrofit of the air-conditioning system from existing air-cooled system to water-cooled system amongst other asset enhancement initiatives.

Apart from retrofitting the air-cooled VRV air-conditioning system to a water-cooled system, other sustainability initiatives such as using the heat generated from the cooling tower to pre-heat the hot water supply to the guest rooms was implemented. Also as part of the on-going green initiatives, the hotel will upgrade to energy saving LED lightings in phases and improve the air quality in the building by controlling the fresh air inlet. The LED lightings reduced the energy consumption significantly.

### STRATEGY

#### Vision

Alpha Investment Partners Limited's vision is to be the leading investment advisor providing innovative and socially responsible solutions to meet clients' needs, achieving superior returns for investors and shareholders, and to be the employer of choice.

#### Goals and Targets

Upon completion, the owner targets to reduce energy consumption by 33%. We believe that increasing energy efficiency and reducing our carbon footprint makes sense both from a financial perspective as well as the environment perspective and benefits our investors as well as the community.

## CONTEXT AND DRIVERS

As a committed and responsible corporate citizen, Alpha actively works to ensure sustainability in how we operate our business. We focus on the environmental, social and governance (ESG) impact of our activities for our various stakeholders such as investors, shareholders, employees, partners and community.

Our parent company, Keppel Land, is a signatory to the UN Global Compact which is a strategic policy initiative by the United Nations for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption.

## KEY FEATURES



**Air Conditioning System Retrofitting** – Conversion of air cooled VRV system to centralised water cooled refrigeration system to achieve efficiency of 0.67 kW/RT with estimated reduction of energy consumption at 848,985 kWh/year (about 33% reduction).

**Heat Recovery For Water Heating** – Installed new hot water recovery system from centralised refrigeration system to isolate electric calorifier.

**Improve Indoor Air Quality** – Improved fresh air ventilation and improved indoor air quality via controlling and treating the fresh air inlet and returned air from the AC system.

**Improve Lighting Efficiency** – Extensive lighting replacement including hotel rooms to achieve estimated 42% better efficiency after retrofitting.

**Reduction In Water Consumption and Extensive Recycling** – Retrofitted with water efficient appliances and implemented the Planet 21 program, an Accor hotel program for sustainable development. Among the initiatives, to encourage hotel guests to reuse their towels instead of washing after every use. For every 5 reused towels, we undertake to plant 1 tree in Indonesia or Thailand that will not only create employment but also reduce greenhouse gas emissions.

## IMPLEMENTATION

### Approach

- Alpha Investment Partners Limited, the manager for Alpha Asia Macro Trends Fund II is responsible for the overall project implementation.
- The design and build project was awarded to Comfort Management Limited upon a competitive tender process.
- For better energy efficiency and reduction of carbon footprint, Alpha embarked on an upgrading program to replace the existing split unit air-cooled air-conditioning system to water-cooled central air-conditioning system. They engaged mechanical engineer and energy consultant to carry out systematic study on the feasibility to upgrade the air-conditioning system, along side with other improvements such as upgrading lighting system to LED, waste recycling, water conservation among others.
- The old air con system was kept as a back up.

### Challenges

- To carry out the retrofitting works whilst minimizing disruptions as the hotel is operating at near full occupancy.
- To maintain the same thermal comfort level at all times during the work period and carefully managed the works, noise and dust for the comfort of our guest.

### Critical Success Factors

- An integrated asset management strategy with careful project planning and implementation is critical to the success of this project.
- Detailed planning and close cooperation with the operator's team to understand the hotel operations and workflow is required to minimise disruption to operations.



## PROGRESS AND OUTCOMES

Upon completion, these key milestones are expected to be achieved:

- Estimated savings in electrical consumption with a 33% usage reduction per annum
- Greenhouse gas emission reduction of about 425 tons CO2 per annum, about 30% of the total carbon emission
- Air distribution system efficiency of about 0.272 W/CMH (CAV)
- Intensive resource recycling and reduction integrated into the operation practices that earned Accor, the operator of the hotel, the 2013 PATA Gold Award for Corporate Environmental Program

Awards that were achieved in this property due to Alpha's sustainability measures:

- Awarded Water Efficient Building Certification by Public Utilities Board of Singapore
- Awarded Greenmark Platinum by Building Construction Authority of Singapore in 2015