

Building Name: The Regent Singapore
Address: 1 Cuscaden Road, Singapore 249715

The Regent Singapore consists of a 12-storey open atrium tower with a total of 439 guest rooms. Most areas are air conditioned, except staircases and the two floors for car parking. The gross floor area of the building is approximately 42,483 square meters.



Measures have been taken to reduce lighting energy consumption, notably, shifting to electronic ballast and replacing conventional light fittings with energy efficient bulbs. Some of these measures are as follow.

- Carpark lighting: from T8 36w batten with convectional ballast to T5 28w batten with high efficiency electronic ballast;
- Staircases from Level B1 to Level 12: convection light fittings 100w tungsten to energy saving PLC 20w;
- Guest room corridors: from T8 36w batten with convectional ballast to T5 14w and 18w batten with high efficiency electronic ballast;
- Chandeliers at guest room corridors: From light bulbs ping pong 25w to Energy saving 11w light bulbs.

The air-conditioning system was optimized. Chillers were properly sequenced to meet the varying loads throughout the day, and VSDs were installed for the chilled water system to control the speed pumps according to the water pressure to meet the required temperature.



Hot water Storage Cylinders



Air-Cooled 60T Chiller



Heat exchangers



Backup Heater panel

In January 2006, the hotel replaced its boilers with a thermawater system. This heat recovery system completely eliminated the diesel consumption previously existed in boilers, and gas consumption was also reduced significantly. In addition to supplying hot water for the whole hotel, the system also produces chilled water, which is fed to the chilled water pipes and, hence reducing the load on the existing plant.

A simple invest-to-return analysis shows that the project has a very favorable payback period of 1.8 years. Together with other energy saving measures implemented, the hotel realized an energy use reduction of about 26% in terms of kWh consumption in 2006 compared to the previous years.