



Eco-resorts and hotels

Key point

- *Investment in energy-efficiency within hotels not only helps reduce the operating costs and the frequency of maintenance but it showcases what guests can do at home.*

Eco-resorts and hotels explained

Eco-resorts and hotels are types of commercial buildings in which the eco-efficiency measures are adopted throughout the lifecycle of the building, ranging from orientation, design, operation and maintenance.

Amid rising environment pressures and soaring resource prices, there is great need for businesses to develop environment-friendly policies and adopt green practices, including the hospitality sector. Eco-resorts and hotels reduce the operational costs of buildings and/or improve the image of companies as part of corporate social responsibility. In addition to the benefits accrued to the business, hotels and resorts have a great potential to influence the behaviour of their guests and to showcase good examples of sustainable practices.¹

How it works

Supply-side management is important in hotels and resorts rather than demand-energy management. Compared with other types of buildings, the average resource consumption of hotels and resorts is higher because customers tend to over-consume electricity and water owing to their non-direct responsibility for the utility payment.

The environmental performance of eco-resorts and hotels cover water conservation, waste management, energy production and conservation, conservation of natural areas and surroundings, protection of flora and fauna, protection of air, water and soil, and environmental education.

Examples of eco-resorts and hotels

Evason Phuket in Phuket, Thailand:² The Evason Phuket resort, which is certified by 'Green Leaf', one of the eco-label for green hotels and resorts, demonstrates how environment-friendly upgrades made in older buildings can improve energy efficiency and reduce water use, wastes and costs. The installation of resource- and energy-efficient equipment in the resort makes both economic and environmental sense. The investment in the energy-efficient equipment to manage energy, water and wastes brought about the following economic benefits and energy savings:

¹ Singapore, Environment Council website: <http://sec.org.sg/awards/ecohotel> (accessed 25 January 2012).

² World Wildlife Fund, Horwath HTL, and Hotel Investment Conference Asia Pacific, *Towards the Business Case for Sustainable Hotels in Asia* (2010).

Table 1: Costs and benefits of the eco-efficient measures taken in Evason Phuket

Item	Investment	Annual savings	Payback
Energy monitoring system	US\$11 000	About 10%	N/A
Quantum heat recovery	US\$9 000	US\$7 500	1.2 years
Centralized mini chillers	US\$130 000	US\$44 000	1.8 years
Energy efficient light bulbs	US\$8 500	US\$17 000	6 months
Biomass absorption chillers	US\$11 5000	US\$41 000	2.8 years
LPG boilers for laundry	US\$27 000	US\$17 000	1.6 years
Rainwater reservoir	US\$36 000	US\$330 000*	1 month

* Estimated cost if water is purchased from private water companies

Source: Six Senses Resorts and Spas (undated), *Six Senses Environmental Policy*.

ITC Sonar hotel in Kolkata, India: The ITC Sonar is the first resort hotel in the world to be registered as a clean development mechanism project by the United Nations Framework Convention on Climate Change for its energy improvement activities. The resort uses 15 appropriate fixtures, such as solar power for heating the spa and variable frequency drive for the main kitchen exhaust fan. The project results in energy saving of 6.32 GWh per year and an emission reduction of 1,962 tonnes CO₂.³ The resort has received 1,996 carbon credits per year for the past ten years.⁴

Strengths with eco-resorts and hotels

- **Reduces operation costs:** Investment in energy-efficiency measures help to reduce the operating costs and the frequency of maintenance. In addition, improved resource efficiency can help to achieve environmental compliance, higher productivity and greater equipment reliability.
- **Showcases of good examples of green practices:** An improved company image by increasing awareness on the environment of hotels and resorts can be used as a marketing tool.
- **Reduces greenhouse gas emissions:** Investment projects that transform eco-hotels and resorts can contribute to reducing CO₂ emissions and thus attain recognition as a clean development mechanism project by the United Nations Framework on Climate Change and Convention.

Challenges with eco-resorts and hotels

- **Lack of access to finance:** The current financing tools are often insufficient to finance substantial amount of investment required for upgrading equipment and facilities. This is because the benefits and risks of retrofitting projects or constructing green buildings are not sufficiently examined and communicated to financial institutions.
- **Lack of awareness or incentives of customers:** Hotels and resorts are a good example of the motivation gap between owners and customers. The owners, who have the responsibility of paying the utility bills, are incentivized to invest in improving efficiency measures. However, the actual resource savings are also dependent on the behaviour of customers, who are free to make any payment for using the utilities. Promotional materials about sustainable use of energy and resource for customers, such as brochures or online publications, are important tools to expand customer awareness about the issues. And they can further help customers change their way of life at home.
- **Misperception of eco-resorts and hotels:** An eco-resort is not a necessarily fancy accommodation but it can be more natural and more attractive to tourists. Specific features of eco-resorts should be tailored according to the climate condition as well as the environment.

³ United Nations Framework Convention on Climate Change, *UNFCCC CDM Project Monitoring Report: Improvement in Energy Consumption of a Hotel*, Project 0686 (Kolkata, India, 2007). Available from http://cdm.unfccc.int/filestorage/t/e/p/report.334/ITC%20Sonar%20Bangla%20Ver%20Report%20_Jan%20-%20dec%2006_%20draft.pdf?t=Umd8bHlnYXVzFDBZwUwnjjpgasXToxXj_Oq49 (accessed 27 November 2011).

⁴ Namrata Singh and Reebea Zachariah, "ITC Sonar First Hotel to Earn Carbon Credits", *The Economic Times*, April 28 2010. Available from http://articles.economicstimes.indiatimes.com/2010-04-28/news/28441771_1_carbon-credits-tonne-of-carbon-dioxide-itc-hotels (accessed 27 November 2011).

Considerations for replicating

- **Support eco-hotels and resorts as part of eco-tourism:** Asian and Pacific countries, such as Indonesia and Thailand where the share of GDP from tourism is high, can realize economic and environmental benefits by promoting eco-resorts and hotels. Given the abundant natural resources adjacent to many hotels or resorts, there should be more practices among the industry to promote eco-tourism rather than only promoting an eco-hotel.
- **Provide various sources of financing:** Retrofitting and/or renovating projects may be aided by donors and government or they can be funded by private sector investment. In developing countries, there is also potential for hotels that plan to upgrade their property to develop clean development mechanism projects with their emission reductions. Soneva Fushi Resort in Kunfunadhoo Island, Maldives, is a good example of how hotels and resorts can address the financial challenge through a public-private partnership. In line with the national carbon neutral strategy, a special agency provided funding to the resort for making energy-efficiency adjustments and adopting sustainable practices.
- **Publicize via eco-label and certification:** There is a tendency to misuse or overuse green labels, and green criteria can be misled if there is no authority to monitor them. Internationally acceptable guidelines can be presented by such credible organization as the International Organization for Standardization (ISO). There are several voluntary national, regional and international eco-labelling and certification programmes in the hotel industry, such as the Eco-Hotel Certification of the Singapore Environment Council and Canada's Green Key Eco-Rating Program. The European Union's eco-label programme for tourist accommodations has set a level of efficiency in six criteria for eco-friendly accommodations: energy, water, general management, wastes, information to guests and information on the European Union eco-label.⁵ The Green Leaf Foundation in Thailand provides a certificate called Green Leaf; the criteria for the certificate include energy, water efficiency, waste management and green procurement.⁶

Further reading

Towards the Business Case for Sustainable Hotels in Asia, by World Wildlife Fund, Horwath HTL and Hotel Investment Conference Asia Pacific (2010).

⁵ The European Commission, *The EU Ecolabel for Tourist Accommodations* (Brussels, 2010). Available from www.euecolabel.eu/userfiles/file/Fact%20Sheet%20tourism.pdf (accessed 30 January 2012).

⁶ Green Leaf Foundation website "Green Leaf Programs". Available from www.greenleafthai.org/en/green_programs/application_greenleaf/ (accessed 30 January 2012).