



EARTHCHECK

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Since 2006, Meliã Bali has been using EarthCheck to benchmark its environmental and socio-cultural performance. Meliã Bali has achieved significant improvements in its environmental performance and, in 2007, the property achieved certification, becoming one of Indonesia's first tourism organisations to gain such recognition for their environmental performance. Meliã Bali operates above best practice levels in a number of categories and has achieved impressive environmental outcomes including:

A **12% reduction** in energy consumption

A **5% reduction** in water use

A **78% reduction** in solid waste generation to 1.0 litres per guest night

EarthCheck benchmark of **100 points** in the for use of sustainable cleaning, pesticide and paper products

MELIã BALI, INDONESIA

Meliã Bali, Indonesia is located in Nusa Dua; Bali's most prestigious resort enclave. The entire property occupies 24 acres of lush tropical gardens with an enormous lagoon swimming pool gently winding throughout the grounds.

The resort offers a range of accommodation options catering to different needs, including 364 superior and deluxe rooms, 81 duplex and executive suites and 10 private villas.

Additional resort facilities include conference and meeting rooms, restaurants and bars, banquet hall and ballroom, water sports, beach and fitness facilities, barber and beauty salons and retail outlets.

Protection of the environment and continual improvement in reducing energy consumption, waste generation and planning for sustainable land-use, are the core focus areas of Meliã Bali's environmental and social sustainability policy. Meliã Bali also operates under an Environmental Management System and has developed an Environmental Protection Manual to provide clear objectives and help prioritise environmental issues.



KEY PERFORMANCE AREAS

REDUCING THE USE OF FRESHWATER AND WASTEWATER GENERATION

Meliā Bali has initiated a number of water saving initiatives since joining the EarthCheck Benchmarking Program and is continually striving to reduce its water use and implement water efficiency measures.

Water efficient fixtures and practices:

Installing water-efficient fixtures such as water savers on taps and shower heads and automatic timers for garden sprinklers

Reduced mains potable water supply pressure from **3.8 kg/cm² to 2.7 kg/cm²**

Installing a water conditioner for its cooling towers to improve water quality, reduce scale formation and blowdown and subsequently reduce the quantity of make-up water required

Weekly leak inspections of all water outlets

Implementing signage and guest education programs

The installation of water-efficient fixtures and automatic timers on garden sprinklers **saved over 24,000 kL/ US\$33,400**. Initial cost: US\$22,700 with **payback a period of approximately 8 months**.

Using recycled water and capturing rainwater:

Utilising recycled water through the Bali Tourism Development Corporation (BTDC)

The combination of recycled water and rainwater capture supplies over **65% of the resort's water needs**

Meliā Bali joined the BTDC in 1985. The BTDC was originally established by the Government with assistance from the World Bank and has since grown to become a collaboration of Bali tourism operators working towards becoming a leading corporation in the world tourism industry.



ENERGY EFFICIENCY AND REDUCING GREENHOUSE GAS EMISSIONS (GHG)

Energy efficiency is of particular concern to Meliā Bali. A staff incentive program encourages employees to contribute ideas and create opportunities to reduce energy consumption. Meliā Bali implemented a range of initiatives which have reduced the resort's energy consumption including:

Replacing inefficient lights:

Meliā Bali achieved **energy savings of 336,276 kWh** by reducing the operational hours of lighting and replacing inefficient lighting. Overall, the resort:

1. Replaced 1000, 80W garden lamps with 23W energy saving lamps
2. Replaced 1200, 50W spot lamps with 1.5W LED lamps
3. Replaced 291, 60W incandescent lamps with 11W PLC
4. Halved the number of lights in the back office

These actions saved energy and resulted in significant cost savings. The total capital and installation cost was US\$39,000 and resulted in **annual savings of US\$32,148**. **Payback period: estimated at 14 months**.

OUTSTANDING ACHIEVEMENTS

- **Water saving rating = 94.7 points out of 100 points**
- **65% of water is recycled or captured**
- **12% reduction in energy**

Optimising equipment energy consumption:

Reducing equipment operational hours

Switching off televisions

Optimising equipment by reducing the capacity of the fountain and heat reclaim pump, and by combining pumping requirements of chiller water

Retrofitting cold water and chiller water pumps to operate more efficiently by installing variable speed drives

Reducing laundry operational hours of occupancy rates are less than 70%

Meliā Bali has reduced its energy consumption by **757,146 kWh** and achieved over **US\$63,949 in savings**, with a **payback period of less than 1 year**.

Improving boiler efficiency:

Meliā Bali has reduced the energy consumption of its fuel oil boilers by:

1. Installing a fuel catalyst to increase efficiency of fuel combustion
2. Installing a dual burner on its service boiler
3. Increasing the frequency of fire tube cleaning from 6 monthly to 3 monthly
4. Installing a merus ring water conditioner to reduce scale build-up on fire tubes and water tank of steam boiler

These initiatives have provided significant cost savings, reduced CO₂ emissions and improved worker health & safety.

COMMUNITY SUPPORT AND EMPOWERMENT

Meliā Bali's commitment to community and environmental initiatives stems from the Balinese spiritual philosophy of 'Tri Hita Karana'. This philosophy emphasizes the importance of balance and a harmonious relationship between humans and God, humans and humans, and humans and nature.

The resort considers community involvement important to its core business and has spent over **US\$25,000 on a range of community initiatives** including:

INITIATIVES:
Community support and donations
Education and training
Local employment and employee assistance
Government engagement: presenting to BTDC on HIV/AIDS

Meliā Bali has a particular interest in ensuring the local Nusa Dua community is supported and that the resort contributes to the improvement of the community.

Meliā Bali is committed to local employment with 70% of the 625 Meliā Bali staff living in the local area. Special consideration is given to employing and empowering local community members.

Wherever possible, environmentally sustainable products and services are sourced locally.

The hospitality industry in Bali is highly dependent on the island's unspoiled environment and the culture of its people. Visitors come especially to enjoy Bali's unique cultural heritage. A better living standard and quality of life for the Balinese people will ensure the future of Bali's hospitality industry.

Meliā Bali is committed to continually improving its award-winning performance in environmental and social sustainability and annual benchmarking to enhance the culture of its people and at the same time to preserve the environment.

Meliā Bali sees collaboration with the local community, government organisations, other tourism businesses, public associations and industry groups as vital to providing a sustainable tourism operation.

SOLID WASTE REDUCTION

Meliā Bali recycles, **re-uses and composts over 70% of its solid waste**. This is achieved through waste segregation, staff training and the strong partnership it has developed with its waste contractor who collects the segregated waste for further separation, recycling, composting or landfill.

Waste reductions have been achieved through:

INITIATIVES:
Onsite composting of organic material
Waste segregation and re-use initiatives
Staff training

OUTSTANDING ACHIEVEMENTS

- 70% of employed staff live within the local area
- Reducing solid waste generation by 78% to 1.0 L solid waste/guest night

PURCHASING SUSTAINABLE PRODUCTS

Sustainable product procurement goes hand in hand with reducing solid waste. Meliā Bali recognises the importance of purchasing safe and environmentally friendly products and has undertaken the following initiatives:

INITIATIVES:
Working with suppliers, authorities and other stakeholders to encourage waste reduction, reduce the quantity of packaging and accepting only recycled packaging where possible
Bulk purchasing to reduce waste generation from packaging

Meliā Bali scored **100 points across the paper, cleaning and pesticide product categories** in its EarthCheck benchmarking by ensuring products are eco-labelled and, where possible, biodegradable.

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