

MODULE 3

BEST PRACTICES IN HOTELS

ENERGY CONSERVATION

Today, we utilize external energy supplies to fulfil many of our basic needs as well as provide comforts, luxuries, and entertainment. The various forms of energy so harnessed include mechanical energy, heat, electricity, light, and chemical fuels. However, due to indiscriminate use, insufficient energy sources have become a global problem, though. The impact of the crisis differs from country to country. The global energy demand is increasing due to the increase in population, industrial development, and changing lifestyles. On an average, 80 percent of the energy used worldwide is produced from fossil fuels such as coal and petroleum. These are depleting at an alarming rate. The hotel industry consumes energy in different forms-electricity, heat petrol, and so on. Each organization invests a huge amount of money to acquire all these sources of energy. For instance, a 500-room, 5-star property with all facilities operating during a power crisis pays an energy bill of Rs 12 lakh per month. It is possible to save 15-20 per cent of this cost by using energy conservation methods. Even if we keep a modest target of 7 per cent, the hotel can save up to Rs 10 lakh per annum. What's more, the implementation of energy conservation mechanisms will not only help the hotel, but also society and the nation as a whole.

Tips for Energy Conservation

We shall now look at some general tips for energy conservation in hotels. Passive design strategies can dramatically affect a building's energy performance. These may encompass the building's shape and orientation, passive use of solar energy, and the use of natural lighting.

- Natural light Develop strategies to optimize natural lighting. Studies have shown that it has a positive impact on productivity and well-being as well. Consider installing skylights if needed. Clean all the glass panes on the north face periodically to improve natural lighting.

- Artificial lighting Install high-efficiency lighting systems with advanced controls, including motion sensors tied to dimmers. Consider the use of timer switch to switch off lighting during hours when they are unlikely to be used.
- Task lighting reduces the level of general overhead lighting required. Use translucent shades and keep them clean to obtain maximum illumination. Use light colored paints on the walls and smooth surfaces to maximize the intensity of the available light. In guestrooms, have a lighting system that is activated only after inserting the key tag into the energy-saver slot. Replace incandescent bulbs with energy saving CFLs and HPMV or HPSV lamps.
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- Use heat-reclaiming equipment in air-conditioning plants. The heat displaced while cooling the air can be used to heat water, which can be used in guestrooms as well as the laundry and kitchens.
- Use solar energy that is abundantly available naturally and save on electricity costs. Solar energy can be used for lighting and heating water.

WATER CONSERVATIONS

Water is the most basic component of all life on earth. The enrichment of water with chemicals waste has become a universal problem, however. Since freshwater shortage is a reality, effective water management procedures are essential for the success of any establishment.

General Tips for Water Conservation

- Toilets Employ a dual plumbing in the design to use recycled water for flushing toilets or a grey-water system that recovers rainwater or other non-potable water for on-site irrigation. Minimize wastage of water by

using ultra low-flush toilets, low-flow showerheads, and other water-conserving fixtures.

- Low flushing WCs require a maximum of 6 liters of water, as compared to traditional WCs that require 10-12 litres. Automatic flushes activated by infrared sensors are ideal for use in public-area urinals. These alone can bring about a 30 per cent reduction in total water usage.
- Waste management Use recycled wastewater for horticultural purposes, flushing toilets, and air-conditioning through separate pipe systems. A sewage treatment plant should be installed for recycling wastewater generated by the hotel.

WASTE MANAGEMENT

This is an integral part of ecotel operations. The waste generated by the property should, as far as possible, be recycled.

Linens and other textiles Condemned bedlinen, towels, and curtains should be reused for making dusters, face cloths, scarves, swab cloths, waiter's cloths, and so on.

Garbage reuse and recycling Segregation of wet and dry garbage should be adopted for recycling, reusing, and recovering waste. Provide recycle baskets for newspaper, white paper, glass, aluminums, cardboard, and plastic in guestrooms-make recycling as easy as possible. Leftover cooking oil may be sold to manufacturers of soap.

Leftovers from guest plates and other food wastes can be recycled in a compost bin or vermincompost pit to procure manure or in a biogas plant to obtain biogas as fuel.

Sewage A sewage treatment plant is an effective way of recycling wastewater generated in the hotel. The recycled water thus produced may be used in gardening and for flushing toilets.

What is Indoor Air Pollution

- The term "indoor air pollution" refers to the dirt, dust, and gases that enter buildings and contaminate the air within.

- It refers to the physical, chemical, and biological properties of air in a home, institution, or commercial facility's indoor environment.
- Indoor air pollution is a concern in areas where energy efficiency improvements make houses relatively airtight, reducing ventilation and increasing pollutant levels.
- Indoor air quality issues can be subtle and do not always have obvious health consequences

Indoor Air Pollution - Control Measures

- Raising people's knowledge of the problem and the grave risk it presents to their health and welfare is one of the most crucial measures in the prevention of indoor air pollution.
- People should discover diverse approaches to decreasing exposures with better kitchen management and at-home child safety with the use of education.
- Additionally, the usage of alternate, cleaner energy sources should be made known to the public as a viable alternative to the direct combustion of biomass fuel.
- To assure their commitment and raise their understanding of the negative impacts of indoor air pollution on health, the stakeholders must include not only members of the public but also politicians and administrators
- Fuel consumption is influenced by habit, accessibility, and most crucially, affordability.
- Since it is the cheapest and simplest option available to them, the majority of low-income families currently only use direct combustion of biomass fuels for their cooking needs.
- However, this situation could be changed by encouraging the use of cleaner energy sources, such as gobar gas, which uses cow dung to produce gas for cooking.
- Proper ventilation should be a priority when building a home; for inadequately ventilated homes, methods like a window above the stove and cross ventilation through doors should be implemented