

## Green Hospitality



ITC HOTELS  
RESPONSIBLE LUXURY



# Road Map for Sustainability: New & Existing Buildings

## A Case Study- ITC Hotels

‘Responsible Luxury’

ITC Hotels Way....



Alwyn Noronha

## ITC Hotels

# First on Earth



▶ The ‘**First on Earth**’ with a ‘**LEED Platinum**’ certification for all our existing & newly built Luxury Hotels & Hotel’s Headquarter.

- ❖ ITC Green Centre
- ❖ ITC Maurya
- ❖ ITC Mughal
- ❖ ITC Maratha
- ❖ ITC Grand Central
- ❖ ITC Rajputana

- ❖ ITC Sonar
- ❖ ITC Windsor
- ❖ ITC Gardenia
- ❖ ITC Kakatiya
- ❖ ITC Grand Chola
- ❖ My Fortune Bengaluru



**ITC Green Centre, Gurgaon**  
Worlds highest ranked building awarded  
Platinum rating under LEED® EB (2012)

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**ITC Maurya, New Delhi**  
First hotel in the world to have been awarded  
Platinum certification under LEED® EB

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**ITC Grand Chola, Chennai**  
The largest LEED® platinum certified Hotel in the World under New Construction (NC) category (2012)

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1st GRIHA five star rating



**ITC Mughal, Agra**  
More than 40% of edible ingredients consumed are harvested and processed locally.

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**ITC Rajputana, Jaipur**

Almost 100% of the total solid waste is either reused or recycled.

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**ITC Maratha, Mumbai**

Consumes 22% less energy than US EPA's (US Environment Protection Agency) benchmark for large size Luxury Hotels.

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**ITC Grand Central, Mumbai**

Consumes 48% less water than LEED® standard for large size Luxury Hotels.

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**ITC Sonar, Kolkata**

The first hotel in the world to earn carbon credits under the carbon trading regime.

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**ITC Windsor, Bengaluru**

100% of the Hotel's energy demand is met through self-owned wind farms.

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**ITC Gardenia, Bengaluru**

The first LEED® platinum certified Hotel in Asia under New Construction (NC) category.

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### ITC Kakatiya, Hyderabad

Almost 100% of the total solid waste is either reused or recycled.

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### My Fortune , Bengaluru

Almost 100% of the total solid waste is either reused or recycled.

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## ITC Hotels : Green Features

### Energy Efficiency

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#### Some Energy Saving initiatives:

- Chiller Plant Optimizer
  - Heat-Pump System
  - Solar based Hot water & Steam System
  - Renewable Energy
  - LED Lighting
  - BMS and DVS System
- Chiller Plant Optimizer: Dedicated Chiller plant / Online Energy Manager system (OEM) for optimum and efficient operation of chiller, pumps and cooling tower
  - Heat Pumps: Generation of hot water and chilled water by heat pump technology
  - Solar Energy : Usage of Solar Thermal ( paraboloid system ) for hot water and low-pressure steam in many hotels.
  - ITC Maratha , ITC Windsor, ITC Gardenia, ITC Rajputana & ITC Grand Chola: 100% Electrical Energy demand met through renewable energy – Offsite self owned Wind Turbine Generators.

## ITC Hotels : Green Features

### Energy Efficiency

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- Energy efficient lighting (LED Lights for energy efficiency and Zero mercury content) and light pollution reduction in all hotels.
- All hotels have a network based building management system to monitor and control the HVAC (Heating, Ventilation & Air Conditioning), Lighting, Sub-metering and water management system.
- Digital Valet System: IPAD operated room control system to control Air conditioning, Lighting, TV etc.
- Condensate recovery system
- Pressure Independent Control Valve system (PICV) for constant water pressure throughout the building and AHU coils.
- Remote monitoring & control system for all refrigerator temperature.
- ITC Sonar is the first hotel to receive carbon credits in the world through the CDM (Clean Development Mechanism) initiatives of UNFCCC (United Nations Framework Convention on Climate Change).



## ITC Hotels : Green Features

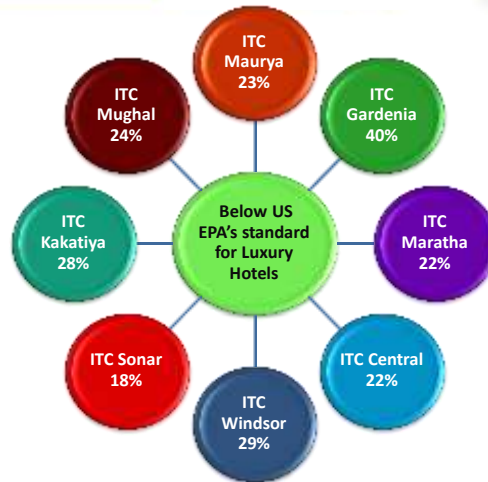
### Energy Efficiency

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ITC Hotels Energy Consumption is much below than US EPA's (U.S Environmental Protection Agency) Benchmark for large size Luxury Hotels.



## ITC Hotels : Green Features

### Water Efficiency

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#### Water Saving techniques:

- Water efficient fixtures
- Sewage Treatment Plants
- Use of Treated water
- Storm water management
- Rain water harvesting
- Sensor operated fixtures, waterless urinals, dual flush water closets and flow restrictors (Aerators) for reducing water consumption against LEED® benchmark for water consumption.
- Only treated recycled water is used for flushing, landscape, cooling tower and miscellaneous cleaning.
- Drip irrigation system for water efficient landscaping.
- Segregation of Black and Grey water for Sewage treatment plant and waste water recycling. Surplus water to neighboring areas / communities gardens.
- Rain Water Harvesting system to capture Roof and Non-roof rain water



## ITC Hotels : Green Features

### Indoor Environment Quality

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- Increased treated fresh air infusion by more than 30% of ASHRAE Std. for better productivity and occupants health.
- Enhanced occupant thermal comfort by individual controllers (Thermostat).
- Green Seal certified Housekeeping chemicals and equipment.
- Mechanical means of rodent control & eco-responsible pesticides.
- CO<sub>2</sub> monitoring systems in AHUs for improved **indoor air quality (IAQ)**.

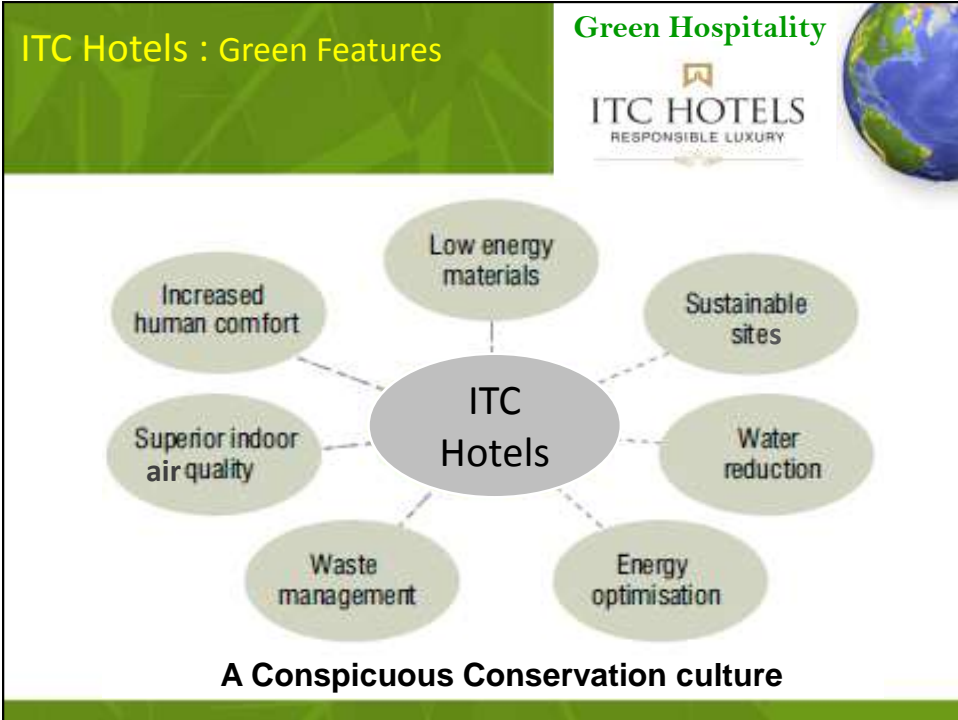
## ITC Hotels : Green Features

### Sustainable Materials and Purchasing

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- More than half of ongoing consumables used are either local or recycled.
- Low VOC (Volatile Organic Compounds) paints and FSC (Forest Stewardship Council) certified wood is used for refurbishments and renovations.
- More than 30% of the food and beverage used is harvested and processed locally.
- Total solid waste is either reused or recycled through Recycling programs or converted into manure by the Organic Waste Converter.
- Usage of **Fly Ash** based cement and Autoclave Aerated Concrete (AAC) Blocks in all new constructions.
- **Multi-glazed** windows with **low-e coating** for thermal insulation.



ITC Hotels : Green Credentials

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ITC Hotels Wind farm - Bengaluru (Karnataka)



ITC Hotels : Green Credentials

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Solar Paraboloid Concentrator



### ITC Hotels : Green Credentials

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**ITC Maurya**  
Excess Treated Waste Water supply to local Municipalities for Reserve Forest in Delhi



### ITC Hotels : Green Credentials

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### ITC Hotels Water Shed Programs - Check Dams



## ITC Hotels : Green Credentials

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### ITC Hotels Water Shed Programs - Check Dams



## Projects Under Execution ITC Hotels

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ITC One Colombo



ITC Kohinoor



ITC Kolkata II



THANK YOU