

# APOLLO GLENEAGLES HOSPITALS, KOLKATA



## Creating a Sustainable Facility along with Associated Opportunities of Cost Saving: The GO GREEN INITIATIVES

**Category:** Facility Management and Financial Improvement

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### ACCREDITATIONS AND CERTIFICATIONS



Apollo Gleneagles Hospitals is a joint venture of Apollo Group of Hospitals, India and Parkway Health of Singapore with Board of Directors. The Parkway Group is a leading healthcare group in Asia. It provides more than 70% of private healthcare in Singapore. A 700 bed multispecialty tertiary care hospital-Apollo Gleneagles Hospitals Kolkata, is a perfect blend of technological excellence, complete infrastructure, competent care and heartfelt hospitality-this is how the people whom we have been fortunate to serve, define the hospital. Apollo Gleneagles Hospitals, Kolkata is the only hospital in Eastern India to be accredited with Joint Commission International (JCI) accreditation, the international benchmark for quality. Apollo Gleneagles Hospitals, Kolkata is the first hospital to receive NABH certification in six separate categories namely Clinical Biochemistry, Clinical Pathology, Hematology & Immunohematology, Microbiology & Serology, Histopathology & Cytopathology, The Food and Beverage Department of Apollo Gleneagles Hospitals (AGH), Kolkata is the first F&B Department of any Hospital in India to get the coveted ISO 22000:2005 HACCP certification. To add to the list it has ISO 14001; ISO 50001; ISO 27001 and ISO 22301 certifications.

First and the only JCI Accredited Hospital in Eastern India. Presently the hospital has 9 accreditations which bear clear testimony to its commitment to Quality and Patient Safety.

Apollo Gleneagles Hospital, Kolkata support these environment friendly global initiatives by stop using R22 and replace it by R134a.

As a step to conservation, organization changes all laundry detergents to Biodegradable Laundry Detergent. Biodegradable detergents are green products which are not chemical based and gets decomposed after a period by micro-organism. These detergents minimize the hazardous impact on environment as it does not decline the level of oxygen when it gets mixed in sewage water.

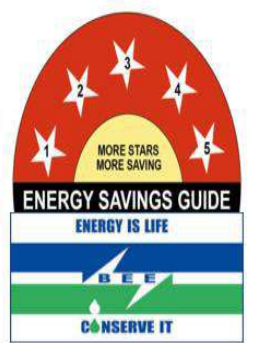
### We recycle Our E-waste



70% of lamps converted to LED which has reduced carbon emission by 41%



All equipment are BEE (Bureau of Energy Efficiency) certified



Use of paper packets in pharmacy and paper cups in cafeteria



Conversion of Laundry operations to electrical to prevent Boiler emissions

### Hospital Environment Policy

To minimize environmental impacts concerning our activities, products and services, we shall:

- Comply with applicable legal requirements and other requirements to which the Company subscribes which relate to its environmental aspects.
- Prevent pollution, reduce waste and minimize the consumption of resources.
- Educate, train and motivate employees to carry out tasks in an environmentally responsible manner.
- Encourage environmental protection among suppliers and contractors.

Sl No.	Our Targets	Timeline
1	Implementation of Rain water Harvesting	2017-18
2	Plantation of 20,000 small trees, 50 nos. of medium tree and 30 nos. of big trees	2017-18
3	Increase in DG Noise level by proper maintenance of gaslet and repairing of spare parts in Day Care Building	2018-19
4	Plantation of 7000 pcs of seasonal flowers and 25 nos. of big trees	2018-19

### Hospitals Wide Energy Policy



### Seven Billion Dreams. One Planet. Consume with Care.



World Environment Day 5 June 2019

The hospital leadership plays an active role in all environmental and biodiversity management endeavors.

Apollo Gleneagles Hospital Kolkata celebrates World Environment Day every year on 5<sup>th</sup> June. On this day the hospital staff and patients join hands together to celebrate this day by planting samplings. More than hundreds of samplings are planted in our hospital on the occasion as an initiative to save our Earth. Also we take pledge to plant more trees, stop using plastic, save trees and recycle, reduce and reuse things to decrease wastage.

### Hospitals Wide Energy Policy

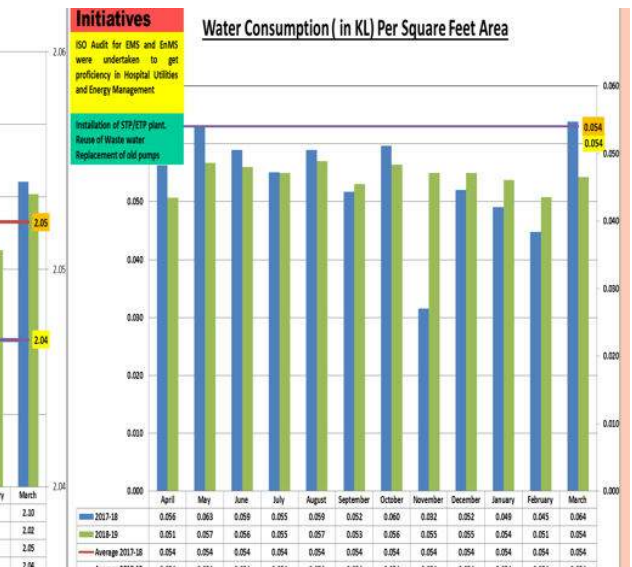
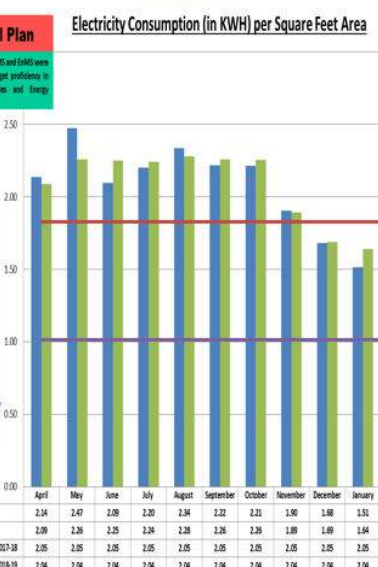
Not only is the hospital committed to providing Quality Healthcare at par with international standards and proudly lists up to the Government of India's declaration of Apollo Gleneagles Hospitals, Kolkata as a "Centre of excellence", but, the unit committed to using energy in an efficient way and is truly a torchbearer in the realm of such endeavours in the healthcare industry as well.

Energy derived from fossil fuels is an important and finite resource. The use of energy has economic, environmental and ethical dimensions. This organization is committed to the responsible use of energy in order to:

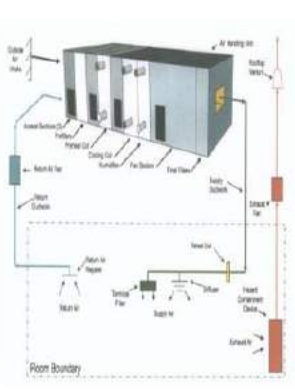
- Minimize energy use and costs.
- Comply with applicable legal requirements and other requirements to which the Organization subscribes which relate to its environmental aspects.
- Educate its staff on energy usage.
- Contribute to a more sustainable society.
- Each member of the Organization has a role to play in conserving energy.
- Rational use of Energy will not involve undue sacrifice or deterioration in the working environment within the Organization.

Sl No.	Our Targets	Timeline
1	Reduction in carbon emission inside hospital premises: replacement of 40 watt tube lights & 18 watt CFLs to 20 watt & 11 watt LEDs 20% decrease in carbon emission in patient care area (20 tubes per year) & 18 watt CFLs (20 bulbs per year)	2017-18
2	Reduction in water consumption in Day Care AC plant: 8% reduction in total water consumption Use of Air cooled screw chiller in place of water cooled chiller	2017-18
3	Increase the surface water: implementation of Rain water Harvesting Harvesting of 11200 KL rain water	2017-18
4	Increase the supply of fresh air through plantation: Plantation to increase the greenery throughout the hospital. Plantation of Small trees - 10,000, Medium Trees - 30 nos, Big Trees - 25 nos.	2017-18
5	4% reduction in electricity consumption in the entire hospital through the replacement light fixtures with LED lights and providing timer system for various electrical appliances. Achieve 30% reduction in overall electrical consumption by using Led Panel Lights, LED Tube lights in areas that needs to light 24 hours throughout the hospital, reducing the lighting load throughout the area. The time system would act upon the necessity and planning thereby reducing cost and providing effectiveness in the maintenance cost. Nos. of LED installed 2500-45 nos, 18W-110 nos, 9W-138 nos.	2017-18
6	Reduction of run time for chillers in Main Building, Day Care Building and Oncology building for 3 hours between 8 am to 3 pm	2018-19
7	Achieve 5% reduction in overall electrical consumption by using Led Panel Lights, LED Tube lights in areas that needs to light 24 hours throughout the hospital, reducing the lighting load throughout the area. Nos. of LED installed 18W-18W-350 nos.	2018-19

### Energy management initiatives



**Building HVAC system**  
- Maintain the required patient's room temperature (22 degree C +/- 2 degree C) inside the Hospital buildings.  
- Ensure the supply of fresh air inside the hospital buildings 24 hours a day (8 TO 25 Air change / hour depends on location and patient care area) and maintain the Humidity inside the hospital building (50% to 60% RH value).



### HVAC System



- The institution is an ISO certified 14001, & 50001. Hence apart from daily facility safety rounds and internal audits, the site is a retro commissioning system as well. As per the ISO guidelines, the site undergoes monitoring rounds from external auditors.

Area	Illuminance in Lux
Waiting area	152
OT area or critical care area (general)	633
Patient Room	163
Kitchen	235

To minimize environmental impacts concerning our activities, products and services, Apollo Gleneagles Hospital follows -



### Hospitals Wide Water Testing

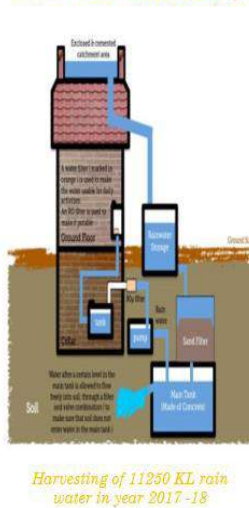
All discharged water of the hospital will be treated in Sewage Treatment plan (STP)/ Effluent Treatment Plan (ETP) through various filtration methods. STP/ ETP will be operated by the vendor (Becon India Pvt. Ltd.) for next one year but will be supervised by HOD, Maintenance. (Detailed procedure is attached for reference).

- The process is as followed:
- Collection of sewage water
  - Chemical dosing with FeSO4 and alum
  - Filtration in tem aeration tanks in zig-zag way
  - Incorporating anaerobic bacteria and generation of sludge
  - Filtration by carbon filter in the outlet tank

Reuse of 1.5KL water for road washing and fire tanks.

Maintenance department shall conduct the yearly water testing of treated discharged water through an approved vendor by WBPCB to check the result BOD and COD level. They shall be responsible for taking corrective action if it increases the permissible limits.

### Rain Water Harvesting



### EURO 4 vehicles



### LED lights



### Annual Cost Saving

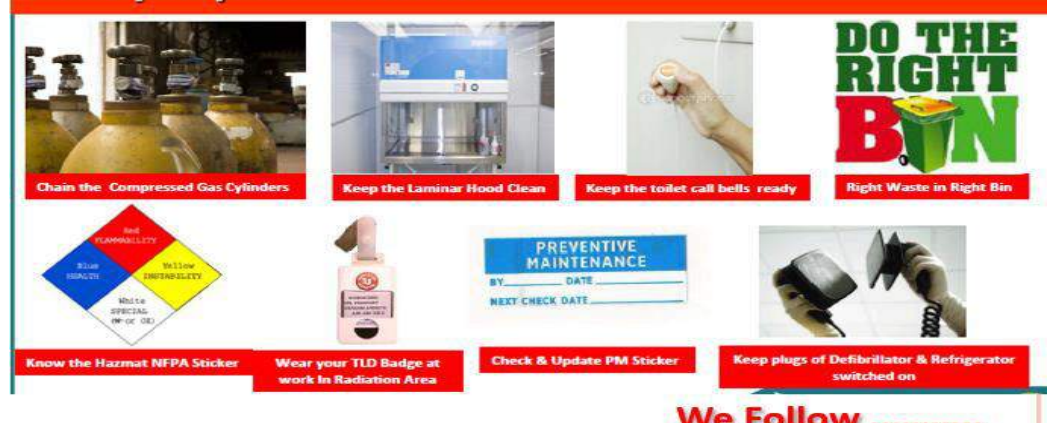
Cost Saving From Energy Management Initiatives

15.17 Million In FY 2018-19 compare to FY 2017-18

### Benefits from Environment Management Initiatives

The quantifiable Carbon Emissions have lowered by 15% in FY 2018-19 compare to FY 2017-18

### Facility Important Points



We Follow .....