

Greenolution *Digest*

Greenolution e-Newsletter, July 2014

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Write for Greenolution
& get it published on the blog:
www.tatapowergreenolution.blogspot.in

Topic for this month:
Rain Water Harvesting

You may share your ideas and/or pictures
and other interesting bits on rain water
harvesting on
greenolution@tatapower.co.in

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COVER STORY

Guardians of the Green



Sapling distribution drive

In a step towards getting nature-friendly, the Tree Plantation Committee at Jojobera organized a 'Sapling Distribution' drive on June 5 and 21, during the sustainability month. As many as 100 saplings were distributed among the employees during the course of the drive. The employees took the saplings home to add to the greenery in their premises.



Pigeon rescuer



An injured pigeon was rescued by Mr. Binay Jena in Vikhroli and later freed after offering it food and water. Mr. Jena found the crow hurting the pigeon and rescued it immediately. He then offered the bird some food and water before freeing it.

Turtle rescuer

Employees in Bhira rescued a turtle and successfully and let it off into its habitat. The monsoons are when turtles increasingly move about along the water bodies. In such times, they also end up coming in the way of fast-moving traffic and injuring themselves. The team, comprising Naresh M Gharat, Neelesh Chorge, Vittal S Sathpute, Rupesh R Dalvi, and SK Reddy of Bhira, acted fast and rescued the animal.



COVER STORY

Guardians of the Green

Water saviour!

Mr. Abhay Pednekar adopted rain water harvesting at his residence to be able to save water. He has managed to bring this initiative home at a cost of Rs6,500.



Water conservation



Mr. Nandkishor Dahule from Mechanical Maintenance Department, CGPL, noticed that each time PRV in the fire water line was operated, service water in the fire line would be drained into the nearby trench. This way, nearly 1,500 litres of service water would go down the drain. Mr. Dahule had an idea to connect the drain line in question to the service water tank. This has led to the water that was earlier let out in the drain, back to the tank. This initiative has helped the facility conserve approximately 1,500 litres of water per day.

Care for environment by reusing old furniture

The SPOM team has converted a room that was earlier used as record room by Administration department to a conference room. This room has been re-designed by using old tables and chairs and now serves as a conference room for conducting meetings to review project related activities. Reusing of old furniture has helped in saving of trees and team has demonstrated their commitment to care for environment.



Energy conservation



A team from Trombay undertaken an initiative to save electricity at the Trombay Thermal Power Plant. They have replaced damaged AC sheets with transparent roof sheets and non-electric wind turbine ventilators at Main Stores Shed for conservation of electricity. These sheets and ventilators require zero maintenance and are very beneficial. This change is estimated to save 81271 units of electricity every year which is equivalent to approximately Rs. 4 Lakh per year.

GLOBAL CASE STUDY

How can you contribute to energy conservation?

Shared by - Indra Kumar Singh
Manager Projects, BackBay

To be able to conserve electricity at home and in work places, it is important that customers use electricity more efficiently.

Indeed this is a corporate as well as an individual responsibility and there is always the need for energy management in the homes and work places to ensure maximum benefit at a minimum cost to customers. Further, as the company takes steps to bring its electricity tariffs to economic levels, consumers need to use electricity efficiently and avoid wastage.

Some energy conservation techniques are as follows:

LIGHTING

- Replace incandescent lamps with fluorescent or compact fluorescent lamps
- Clean your light bulb frequently. Layers of dust can absorb up to 30% of the light from the lamps. Hold the base and use a dry soft cloth or brush to clean the lamp.
- Switch off lights in room, toilets, bath rooms when not in use.
- Use lower wattage bulbs in area that do not need bright lights e.g. storage rooms and bath rooms
- Never use clusters of incandescent lamps for decorations
- For offices with low occupancy rates, install simple electronics controls such as passive infra red sensors. They ensure that lights are automatically switched off when rooms are not occupied for more than a pre-determined period



- Too many outside lights do not necessarily provide security. Infra-red sensors or motion detectors are a more energy efficient solution.
- When you remove a 'dead fluorescent lamp which you don't intend to replace immediately, remember also to remove the starter, or else the choke will consume electricity at the rate of 12 watts.
- Always choose T.5 linear fluorescent lamps with electronics ballast. They consume 40% less energy than conventional linear fluorescent lamps.

ELECTRIC IRONS

To make maximum use of electricity for ironing:

- Iron garments in bulk
- Remember to turn off the iron when you are done
- Unplug it

AIR CONDITIONERS

Large central air conditioning systems, window type units and the modern split and multi split systems are high energy consuming appliances. To reduce electricity consumption:

- All the windows and doors to an air-conditioned room must be as tight as possible to prevent hot air from entering the room
- Louver windows are not the best for air-conditioned rooms because of gaps between the blades. However if you use louver windows, keep them firmly closed



How can you contribute to energy conservation?

- Always switch off the air conditioner when leaving the room for more than 10 minutes
- To allow free circulation of air, don't place objects in front of the unit
- Always keep your door closed
- Avoid direct sunlight into the room, use curtains or reflective glaze
- Don't over cool your room. Room temperature of 24 – 26 are comfortable enough for normal work or relaxation

ELECTRIC COOKERS

The electric cooker is the highest electrical energy consumer in the home with a power rating of about 8,500 watts. Unless it is inevitable, avoid using the electric cooker. The gas cooker is cheaper

- Use cooking utensils that slightly bigger in diameter than the hot plate to prevent heat from escaping
- Use flat bottomed pans for the best contact with hot plate
- Utensils should have tight fitting lids to minimize heat loss
- Cut food into small pieces, it cooks faster and evenly
- Use just enough water for cooking. Too much water takes longer time to boil
- Minimize lifting the lid off utensils when cooking, it reduces cooking temperature and wastes energy
- Use aluminium pans with bright shiny exteriors, they provide good heat distribution
- Always place the cooking pan on the hot plate before switching on cooker. If you need to bake, avoid long pre – heating.

DEEP FREEZERS / REFRIGERATORS

A refrigerator or deep freezer is practically an insulated box fitted with a compressor that removes heat from the box and throws it out to the surrounding environment. The efficiency of the refrigerator or deep freezer depends on how efficiently it removes heat from the box into the surroundings and how long it can keep its contents cool.

- Keep refrigerators away from direct sunlight
- Clean the coils at the back of the refrigerator as often as possible. Dirt build up makes the refrigerator waste energy
- Avoid placing freezers / refrigerators too close to the walls or in corners

- Allow space for adequate ventilation of the coils at the back of the refrigerator / freezer
- Don't put hot food in the Refrigerator
- Test the seal around the doors of fridges / freezers by closing the door on a thin strip of paper, ensure that the paper is tightly gripped and does not slide easily
- Defrost the freezer compartment regularly since ice build – up causes excessive electricity wastage
- Don't put the refrigerator/ freezer close to a hot object
- Decide what you want from the refrigerator / freezer before you open it.

OTHERS

- Mobile phone chargers could also consume up to 10 watts if left on, even though the phone may not be connected
- Modern Audio and Video equipment such as TV, DVD, VCD, Stereo System and Video Recorders are equipped with remote control systems to ensure user comfort and convenience. They however consume power at the rate of 15 – 25 watts when they are in the standby mode. To avoid excessive electricity consumption by these devices, unplug when not in use. This also reduces the risk of fire outbreaks



GREEN QUIZ

Quiz

1 How long does it take a 100-watt light bulb to consume 100 watts of energy?

- A. 1 Hour
- B. 24 hours
- C. 1 Minute

2 How much power does a CFL bulb use in comparison to a standard bulb?

- A. One-tenth
- B. One-third
- C. Two-thirds

3 What is the best method for reducing your personal computer's energy use?

- A. Keep just one program running when you leave your desk
- B. Put the computer in sleep mode or deactivate the screen saver
- C. Close all open programs

4 This energy is the heat generated by natural process within the earth. The main energy sources are the hot rocks, magma, geysers, and hot-springs. This form of energy is known as

- A. Solar energy
- B. Geo thermal energy
- C. Ocean thermal

The winner for last issue

Dheeraj Pareek, Lead Engineer - QA, I&T

Congratulations!



GREEN CLICK



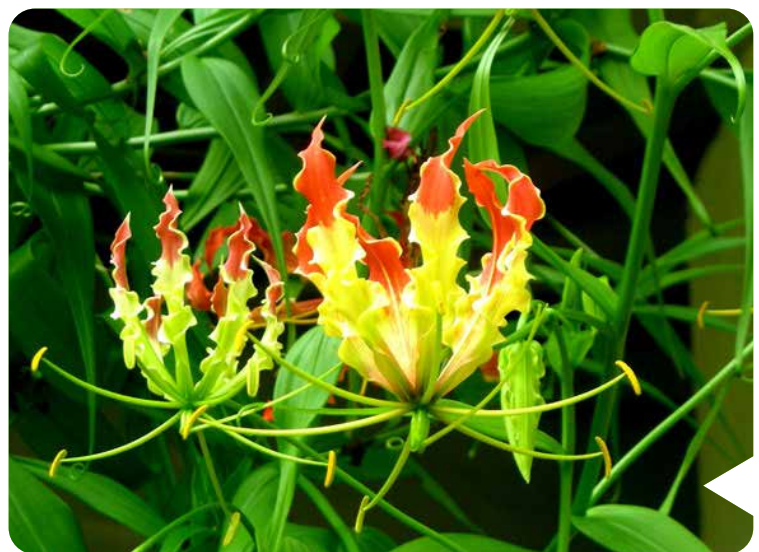
Amresh, Tata Power Solar



Arpit Patel, CGPL



S.Patnaik, Jojobera



Sanket Kulkarni, SED