

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
DEPARTMENT OF PHYSICS
Student Centered Activity
Academic Year 2021-2022

- **Activity Name:** Celebration of National Energy Conservation Day

Class: B.Sc. I, II, III

Activity coordinator: Dr. A. R. Patil

Date: 14/12/2021

Venue: Physics Department

- **Objective:**

- i) To create awareness about conservation of energy among students.
- ii) To create awareness about conservation of energy among society.
- iii) to raise awareness of various energy conservation methods.
- iv) To know importance of conservation of energy.
- v) To develop scientific attitude in students.

No. of students present: 14

- **Brief Activity Report:**

The National Energy Conservation Day was introduced by Dr. A. R. Patil, an assistant professor of physics. On the department's notice board, the wall paper depicting the importance of energy conservation and various methods of energy conservation has been displaced.

Major. Dr. R. S. Dubal sir, principal R. C. Shahu College, Kolhapur inaugurated wallpaper on "National Energy Conservation Day". The goal of this initiative was to raise public awareness about energy saving. As a result, students from the physics department distributed leaflets in the Sadar bazaar slum area, demonstrating energy conservation methods and attempting to raise public awareness.

Coordinator

(Dr. A. R. Patil)

रयत शिक्षण संस्थचे
राजर्षी छत्रपती शाहू कॉलेज, कोल्हापूर

पदार्थविज्ञान विभाग

शैक्षणिक वर्ष २०२१-२०२२

"राष्ट्रीय उर्जा संवर्धन दिवस"

❖ उर्जा बचतीचे उपाय

१. सीएफएल अथवा एलईडी दिवे वापरावेत.
२. ज्या खोलीत आहोत फक्त तिथलेच दिवे, पंखे वापरावेत.
३. खोलीबाहेर पडताना खोलीतले दिवे, पंखे बंद करण्याची दक्षता घ्यावी.
४. उतरताना शक्यतो लिफ्ट वापरू नये.
५. लिफ्ट मधील फॅन व दिवे बाहेर पडताना बंद करावेत.
६. जास्त स्टार रेटिंगची उपकरणे घ्यावीत. (फ्रीज , वॉशिंग मशीन वर असे रेटिंग असते).
७. मोबाईल चार्ज झाल्यावर तो चार्जरपासून वेगळा करताना बटण बंद करावे.
८. मिक्सर सारखी इलेक्ट्रिक उपकरणे वापरून झाल्यावर बटण बंद करूनच वायर प्लग आउट करावी.
९. ऑफीसात/घरी कॉम्प्युटर मॉनिटर काम नसताना किंवा आपण जागेवर नसताना बंद करावा.
१०. पाण्याची मोटार वेळेत बंद करण्यासाठी तेव्हाच्या वेळेचा गजर लावावा.

Save Energy

Save Earth.....!!!

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
DEPARTMENT OF PHYSICS
Student Centered Activity
Academic Year 2021-2022
“National Energy Conservation Day”







In India, National Energy Conservation Day is observed every year on **14th December** to raise awareness about the significance of energy and the need of conserving energy by using less energy. The Energy Conservation Act in India was executed by the Bureau of Energy Efficiency (BEE) in the year 2001. The Bureau of Energy Efficiency is a constitutional body which comes under Government of India and helps in the development of policies and strategies in order to reduce the energy use.

❖ What is the Energy Conservation?

National energy conservation day in India is celebrated to aware people about the importance of energy as well as saving or conserving the more energy by using less energy. The exact means of energy conservation is using less energy by avoiding the unnecessary uses of energy. Using energy efficiently is very necessary to save it for the

future usage. Energy conservation should be rooted in the behaviour of every human being to get more effect towards the plan of energy conservation.

❖ **History and significance of National Energy Conservation Day:-**

The day focuses on raising awareness of climate change and global warming. By conserving mankind can ensure a safer and greener planet. Energy forms the basis of the sustainability of humans thus its conservation is our priority. The Energy Conservation Act, enshrined in the Indian Constitution, defines the actions, procedures, and strategies that help with the conservation of energy. The act was formed by the Bureau of Energy Efficiency.

For the year 2021, the Energy Conservation Awareness Campaign coordinated by the Energy Efficient Management Group of NTPC Bongaigaon organized a walkathon at NTPC Bongaigaon.

Energy conservation oath was taken by the participants of the walkathon and employees of the station. Pamphlets on various tips of energy conservation were also distributed on the occasion of Energy Conservation Day 2021. The workers and engineers of the plant administered the oath and spoke on various topics related to the conservation of energy. National Energy Conservation day is celebrated on the 14th of December. The day has been celebrated since 1991 and is headed by the Ministry of Power. The day is celebrated on the 14th of December but there are events held for

weeks leading up to the day. This year they have organized painting competitions for all schools.

From 8th to 14th December 2021, The Ministry of Power is celebrating Energy Conservation Week under the campaign “**Azadi Ka Amrit Mahotsav**”. Various competitions and activities are being undertaken by Power CPSUs as part of the celebrations.

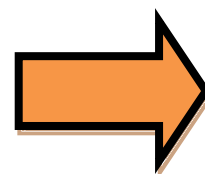
The Bureau of Energy Efficiency has been organizing National Level Painting Competitions on Energy Conservation for school children.

❖ **Objectives of National Energy Conservation Day:-**

- National energy conservation day is celebrated every year using particular theme of the year by keeping in mind some goals and objectives to make more effective all over the country among people. Some of the important goals are:
- It is celebrated to send the message of importance of conserving energy in the every walk of life among people.
- Promoting the way of process of energy conservation by organizing a lot of events such as discussions, conferences, debates, workshops, competitions and etc all through the country.
- Promote people for less energy usage by neglecting the excessive and wasteful uses.
- Encourage people for efficient energy use in order to decrease the energy consumption and prevent the energy loss.

❖ Measures for energy conservation:-

- Every person can save energy by eliminating unnecessary use of fan, light, heater or other electrical instruments used in their daily life. It is the easiest and effective way to save the extra energy usage which can be played a major role towards National Energy Conservation Campaign.
- Fossil fuels, crude oil, coal and natural gas etc. are generating enough energy to use in daily life, but their demand is increasing day by day, which creating fear of lack of natural resources in the future. Therefore, for energy conservation, we should use renewable energy resources instead of the non-renewable resources of energy.
- In many countries, government charges energy tax or carbon tax to make energy conservation effective. By this tax, imposed on high consumption of energy, use of energy has decreased and increased awareness among users about limited use of energy.



How?



1. Turn your refrigerator down

Your refrigerator consumes on average 13.7% of your total home energy use. To save electricity at home, set your fridge to 37 degrees Fahrenheit and your freezer to 3 degrees Fahrenheit. This way, the fridge, and the freezer will consume less energy.

2. Use energy-efficient light bulbs

Install energy-saving CFL or LED bulbs for all your lighting and reduce your energy use by around 25-35 per cent.

3. Clean or replace air filters

Air conditioners and heaters use the most energy in your home and make up a large part of your electricity bill. They use even more energy when the air filters are dirty for them to work efficiently. Make an effort to clean and replace filters as recommended.

4. Do full loads

This is one of the easiest ways to conserve energy at home. Simply wait for a full load before running your dishwasher and washing machine. Yep, no need to do laundry every day.

5. Air-dry dishes and clothes

Speaking of laundry and dishes let your dishes air-dry. Instead of using your dishwasher's drying feature. For clothes, hang them clothes outside to dry.

6. Cook using the right-sized burner

Use your stove's small burners for small pots and large burners for large pots when cooking. You will end up using less energy every time you cook.

7. Cut down on air leaks in your home

Seal up any window and door cracks with weather stripping or caulk. This ensures that you don't spend too much energy to stay warm during winter and cool in the summer.

8. Keep your house a little hotter in the summer and a little cooler in the winter

Set your thermostat to 68 degrees Fahrenheit in winter and to 78 in summer. This may force you to wear lighter clothes in summer and a few extra layers in winter instead of changing the thermostat temperatures.

9. Wash clothes in cold water

This is one of the best energy saving tips to save you money. When washing your laundry, use the cold setting on your washing machine instead of using hot water. This way, you'll save around \$115 every year.

10. Install a programmable thermostat to save energy

This eco-friendly product will save you up to 10% on electricity costs. Program your thermostat to heat or cool to more cost-friendly temperatures and conserve energy.

11. Use your window shades

Close your blinds to keep out the sun during summer and keep them open during winter to bring in warm rays. When you do this you won't have to use a heater or an air conditioner

12. Turn off all lights, appliances, and electronics, not in use

Here's another one of the simplest energy conservation techniques. Make it even easier by installing a power strip that will turn off multiple items at once. Power strips also help to efficiently distribute energy to your appliances wasting less electricity.

13. Use low-flow faucets and showerheads

Are your water bills getting higher by the day? Replace your current showerhead with one with a flow rate of less than 8 litres per minute to save on water bills.

14. Repair any electrical issues in the home

Fix any electrical issues such as electrical surges, burnt out bulbs, or constant flickering. Such fixes ensure that your electrical equipment is running more efficiently while optimizing energy output.

15. Invest in energy-efficient appliances for the home

Replace old appliances such as washer, dryer, and fridge with new ones that are more energy-efficient. Look for appliances with ENERGY STAR ratings and logo. Such appliances use less energy.

16. Set the water heater to the lowest comfortable setting

If your home has more than two people then your ideal water heater setting should be around 115 degrees Fahrenheit. This setting will reduce the amount of energy necessary for heating water.

17. Do laundry efficiently

Laundry takes up a lot of energy so, find ways to do it efficiently and you'll end up saving a lot of energy. You can try a few neat tips such as using the dry sensor feature on the dryer and cleaning the lint trap between dry cycles.

18. Check that the home is insulated properly

Rain could easily damage your home over time. Find any damage such as air leaks. Also, check the insulation in the walls, attic, and around the plumbing. Fix or seal any damage to keep unwanted air out.

19. Shut doors and close curtains

A simple way to practice how to conserve energy around the home is shutting doors to areas you're not using. Also, only cool or heat the rooms where you spend the most time.

20. Save money with solar energy

Solar energy is a safer alternative to electricity and gas. It is cheaper (actually almost free) and kinder to the environment.

21. Turn off incandescent lights when you are not in the room

If you can't use energy-saving bulbs just yet, make sure that you turn off all incandescent bulbs around your home when not in use.

22. Use microwaves and toaster ovens to cook or warm leftovers

These tend to use less energy than a conventional oven.

23. Avoid using the rinse hold setting on your dishwasher

This feature uses 10-15 more liters of hot water per use. Not only does this save water but it also saves electricity.

24. Take shorter showers

Typically, you use about 20 liters of water per minute as you shower. Reducing your shower time will save water and energy as well.

25. Install a timer for your water heater

A timer will automatically turn off your heater when you are not at home or at night. No wasted energy.

26. Clean the dryer lint filter regularly to keep your dryer running efficiently

A dirty filter will use up more energy, try and clean it regularly. Don't forget to clean the tubing too. The long nozzle on your vacuum cleaner makes it easier to clean out particles that get beyond the filter.

27. Add aerators to your faucets

Choose aerators with a flow rate of about 3.5 liters per minute for maximum energy savings.

28. Turn off your water heater if you plan on leaving home for a few days

Always remember to turn off your water heater if you won't be around for a couple of days even if you've installed a timer.

29. Add an insulating blanket to older water heaters

If you have an old model water heater cover it with an insulating blanket and reduce standby heat loss by 25%–45%. This energy conservation trick will save you about 4%–9% in water heating costs.

30. Unplug battery chargers

This is one of the most easily ignored energy conservation techniques. We ignore it without even realizing it. Unplug chargers as soon as the batteries are fully charged or the chargers are not in use. Most chargers continue to draw power even when not charging a device.

These tips on how to conserve energy may seem like inconsequential adjustments but, believe us, these small steps become great leaps when each one of us makes an effort, no matter how small.

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