

INTRODUCTION

In the modern world, energy has become the basis of human life. Practically, all activities today revolve around either the transfer or transformation of energy. As a result, the rate of consumption of energy has increased manifold and thereby become a grave concern. The rapid depletion of natural resources makes a compelling case for the judicious use of energy.

It is common knowledge that environment and energy are inter-related. The increasing use of energy resources is one of the main causes of negative impact on the environment. It is, therefore, essential to make society aware of the efficient use of energy and its conservation. Individual energy consumers must also be made aware that they can contribute to a sustainable energy future by reducing their own consumption and by choosing energy-efficient products. Decreasing energy consumption will not only save money but also reduce the need for fossil fuels.

REACHING OUT

Students today are a force to reckon with. They are the guardians of our future, through whom we can effect global change for a better tomorrow. They are keen observers and better learners at a very impressionable age. They have the capacity to sensitize and mobilize their parents, peers, and communities. Therefore, it is imperative to sensitize students and provide them with skills necessary for carrying forward the message of energy awareness and conservation.



Keeping this in mind, TERI (The Energy and Resources Institute) under the aegis of the BEE (Bureau of Energy Efficiency), Government of India, is implementing a school education programme – BEACON (Building Energy Awareness on Conservation) – across India. The programme targets students from classes 6 to 9 from 10 selected schools in one city/town from two states of each of the five zones: North, South, East, West, and North-East.

Objectives of the programme

- ① Create awareness among children and their parents on energy competitiveness and energy security at individual levels on a smaller scale, thus contributing to the national level at a larger scale
- ① Provide guidance to teachers in order to maximize excellence in energy education process
- ① Enhance learning of students and sensitize them on key energy issues that will impact their lives
- ① Build awareness and a sense of responsibility among students regarding the environment in general, and energy conservation in particular

APPROACH

Since awareness is the prerequisite of any action programme, the project will operate in two phases: awareness generation and action. The project's methodology will include the following.

Setting up of energy club: A minimum of 30 students will be identified to set up an energy club in each of the identified schools. This group will assist the teacher-in-charge during the



project period who will carry forward and sustain the introduced activities after the project is over.

Sensitization: Workshops and panel/ group discussions for teachers and students will be held in each city by experts and the TERI team. Here, key issues regarding energy conservation will be discussed.

Training: Training on conducting energy audit in schools/homes and on executing door-to-door campaigns will be held.

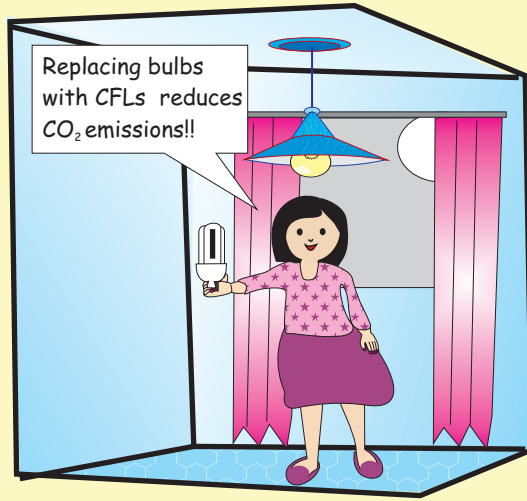
Competitions: Competitions such as poster/slogan, caricature, debate, comic strip writing, street plays, model making, essay writing, and quiz will be held in schools. The best poster/slogan/caricature will be developed into resource material so as to motivate the students.



FACTS ON ENERGY

- ① Electric lighting burns up to 25% of the average home energy budget. Electricity used over the lifetime of a single incandescent bulb costs 5 to 10 times the original purchase price of the bulb itself. CFL (compact fluorescent lights) has revolutionized energy-efficient lighting. CFLs are simply miniature versions of full-sized fluorescents. The compact design allows them to be used in place of incandescent bulbs. (Thomas Alva Edison is an important name in the history of electricity. In the late 1800s he made 1093 inventions; but his most famous is the incandescent light bulb. He wanted to bring light into homes and factories. Until then people used candles or whale oil lamps for light)

⊙ Replacing a single incandescent bulb with a CFL will prevent emission of half a tonne of CO₂ (carbon dioxide) into the atmosphere over the life of the bulb. Saving electricity reduces emission of CO₂, sulphur oxide, and high-level nuclear waste.



⊙ LEDs (light-emitting diodes) are small, solid-state light bulbs, which are extremely energy-efficient. LEDs are popular, especially for battery-powered items such as flashlights and headlamps. LEDs use a fraction of the wattage of incandescent bulbs. Batteries used with LEDs last 10 to 15 times longer than those used with incandescent bulbs. Also, because these bulbs last for years, the maintenance and replacement costs are saved.

⊙ CFLs contain small amounts of mercury. Mercury poses no threat while in the bulb; but if you break one be careful not to inhale the mercury. Immediately tell your elders to clean it up using a wet rag and put all pieces and the rag into a plastic bag.

BUREAU OF ENERGY EFFICIENCY

The BEE is responsible for spearheading the improvement of energy efficiency in the economy through various regulatory and promotional instruments. The mission of the bureau is to institutionalize energy-efficiency services, promote energy-efficiency delivery mechanisms preferably with market participation, and to provide leadership in energy-efficiency endeavours in all sectors of the economy. The primary objective of the bureau is to reduce energy intensity in the Indian economy through stronger services, develop testing and certification procedures for energy-intensive equipment, promote innovative financing of energy-efficiency projects, and implement an international cooperation programme relating to efficient use of energy. It would also take steps to encourage preferential treatment for use of energy-efficient equipment or appliances, create awareness and disseminate information, promote research and development, and arrange training of personnel and specialists. For further details, please log on to <www.bee-india.nic.in>.

THE ENERGY AND RESOURCES INSTITUTE

TERI is a not-for-profit, research organization working in the fields of energy, environment, and sustainable development since 1974. What sets TERI apart is the fact that, besides research, it has been actively involved in educating and disseminating information to the public.

The EEA (Environment Education and Awareness) Area of TERI has been promoting this concept and working with schools to instil environmental values and sensitize children of all ages and other groups in the society to make them environmentally responsible citizens. Youngsters can act as catalyst to improve the quality of the environment they live in and, consequently, their lives. Keeping this in mind, the EEA Area has undertaken several short- and long-term projects with schools, involving both teachers and students.

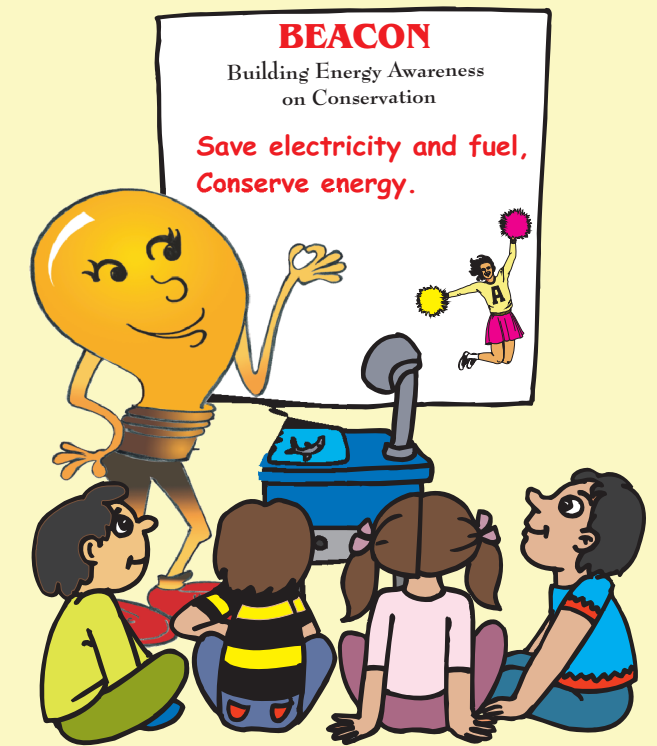
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BEACON

Building Energy Awareness on Conservation

**School Education Programme
 2006/07**



Executing agency



Bureau of Energy Efficiency

Implementing agency



The Energy and Resources Institute