

E for Energy Efficiency - Phase II

Executive summary

Introduction

Energy efficiency means ‘using less energy for the same services’. The world currently relies on fossil fuels like coal, oil, and natural gas for its energy. Fossil fuels are non-renewable and finite resources that will eventually dwindle. The increase in demand for energy in response to industrialization, urbanization, and societal affluence has led to considerable fossil fuels burning which in turn has an adverse impact on environment. Thus, it is of paramount importance that energy is conserved and efficiently used. It has been estimated that nearly 25,000 MW can be saved by implementing end-use energy efficiency and demand side management measures throughout India. It is also important to use energy efficiently and conserve it due to the fact that one unit of energy saved at the consumption level reduces the need for power generation by three times.

Students are not just the future citizen of the country but will also be the future decision makers who will have to bear the brunt of the unplanned consumption of energy sources. However they are the change agent with new ideas and they can also play a crucial role in bringing about a positive change in the society in terms of sustainable development. Sustainable development is the benchmark of growth of a nation. This can be achieved by amalgamating the ideas of industries like POSOCO and academic institutions like schools.

Project ‘E for Energy Efficiency II’

With the above background, The Energy and Resources Institute (TERI) in association with Power System Operation Corporation Ltd (POSOCO) implemented the project ‘E for Energy Efficiency’ with the objectives to build consciousness on the importance of energy efficiency amongst the future generation of the country, to educate students on the inter-linkages of scarce resources and its optimum utilization, and to create an informed group of citizens by encouraging students to actively participate in efforts to conserve energy. The project aimed to address the important issue of energy efficiency by sensitizing the students on the optimum utilization of depleting energy resources, and encouraging them to actively participate in efforts to conserve energy. Phase I of the Project was implemented in 10 schools each in Bengaluru and Mumbai. Phase II of the Project was implemented in new schools in Bengaluru, Delhi and Mumbai to spread the awareness among students about energy efficiency.

A child-friendly and activity-oriented project, E for Energy Efficiency reached out to students in the age group of 8 to 12 (classes IV – VII). The project targeted 7 schools each from Bengaluru, Delhi, and Mumbai with the following specific objectives:

- Build consciousness on the importance of energy efficiency;
- Create leadership among students and teachers to lead school programmes on energy conservation;
- Encourage students to participate in activities spreading consciousness about energy-related issues;
- Create an informed group of citizens to ensure project sustainability.



The highlights of the project were conduction of knowledge workshops, competitions, teachers' training, energy audit, creative workshops, visit to energy efficient buildings, energy torch bearers. The target groups were teachers and students from 21 schools from Standard IV – VII and POSOCO employees directly and family members of POSOCO employees, students and teachers indirectly.

Resource Materials

- A child-friendly brochure-cum-poster was developed for information dissemination and awareness generation among the school students at the inception of the project. This was an effective way to inform as well as involve other students in the project.
- Greeting card on energy related issues were designed and printed.
- An educative poster on 'Eco Tips for a Sustainable School', was designed and developed.
- To ensure that the entire school recognized the project team and their activities, the children were given badges with the project logo on it.
- Also to inculcate a feeling association, pride and a sense of belonging amongst participants' attractive caps and shirts (incorporating the project logo, TERI and POSOCO) were developed and distributed to the schools. And the energy torchbearers were provided with project hats, sweat shirts and bags.
- A Digital Game on the line of monopoly has been developed to create awareness on energy conservation. The schools were provided with game CDs.
- A Photo Book on all project activities conducted in the three cities has been developed.
- An Energy Audit Sheet has been developed and distributed to the project schools. The audit sheet helped the teachers/students to calculate the total units of energy consumed per month as well as to calculate their electricity bill. This process enabled them to track and calculate the energy reduction at the school.
- A hand book on game designs for schools was developed with 13 innovative games on energy conservation. A pen drive of the handbook on Gamification was distributed in schools for teachers to use as teaching modules.
- The feedback forms were developed in such a manner that students were provided with Energy Sudoku games as take away.
- A project multimedia was prepared to showcase the activities organized under the project. This will help schools to replicate the project module on energy conservation and efficient use in future.