

## Energy Conservation Mission Activities – 2004

### Launching of ECM

The Institution of Engineers (India), having recognized the need for enhancing awareness in energy conservation measures in various sectors, authorized AP State Centre to constitute "Energy Conservation Mission" (ECM) as one of its wings. The main objective of ECM is to create public awareness and disseminating information for promotion and implementation of various measures contemplated in Energy Conservation Act, 2001 and beyond.

The ECM was formally launched on 16 th December 2003 at a function jointly hosted by the Govt. of Andhra Pradesh and the Institution of Engineers (India), AP State Centre, coinciding with the National Energy Conservation Week. A steering committee was formed to direct and oversee all the activities of ECM. "Save-Today-Survive-Tomorrow" was designed as the Mission Slogan and the website was registered with the same name and was hosted .ECM commenced its activities earnestly drawing up an action plan for the year 2004.

### Action Plan for 2004

To jump start the activities, the ECM has spelled out its objectives, targets and priorities. The ECM also has identified the few key areas, designed a structure for initiating activities for Energy Conservation in the identified areas during 2004. The ECM has been extremely fortunate to have mustered the services of over a score of committed professionals who have excelled in the various fields, such as Power Generation, Transmission, Distribution and Utilization and also the associated Management and Academic fields. With the enlightened participation of experienced professionals from several disciplines, the resources were synergized and detailed plan of activities was finalized.

### Working Groups & Core Group

The next important step to implement the action plan was the formation of Working Groups who have dedicated their focus and attention on the respective identified areas. The Conveners and the members of the Working Groups, who have the necessary competence and offered their services, were the real catalysts to muster the support from the Industry, Users, Educational Institutions and Academicians. The ECM was fortunate to have the support of such dedicated persons.

The ECM Core Group, comprising the members of the Steering Committee, Conveners of Working Groups and other Specialists & Experts was formed. Periodic meetings of the Core Group members were held to review the progress of the activities undertaken by the Working Groups, which themselves met regularly to monitor & review the progress of their respective action plans.

ECM has commenced its activities simultaneously in the areas covering \*Industry \* Domestic \* Commercial \*. Non-Conventional Energy \* Educational Institutions \*Utilities & Agriculture \* Transportation \* Training & Standards \* Publicity

### Publicity

For any Mission to be successful, its objectives need to be given wide publicity especially during the nascent phase. It is important to publicize to generate awareness and inculcate interest about Energy Conservation in the minds of all segments of society. The ECM has brought out a set of handouts high lighting the various aspects of energy efficiency and its conservation.

Special efforts were directed towards Schools and Colleges to catch the children young and spread the awareness. Seminars, Round Table Discussions were also held. All the activities were designed to carry the message of Energy Efficiency and its Conservation conspicuously and to generate the enthusiasm. The State Government Departments, NEDCAP, PCRA, NGC, AP.

Pollution Control Board, CII, FAPCCI, ESCI, and the other organizations engaged in the areas of Environment and Resource Conservation were invited to join the all important task and to extend their cooperation.

The ECM has established a Website [www.save-today-survive-tomorrow.com](http://www.save-today-survive-tomorrow.com) furnishing all information about the Mission and its activities. Latest knowledge on energy conservation, tips to save energy, information about best achievers of energy efficiency, opinion polls on energy issues, quiz and other items of awareness etc are included in the web-site. The site is regularly updated and made lively with new items from time to time. More than 2000 visitors have visited the site since inception and some of them maintained meaningful contacts with the Mission.



### **Save Energy 2004 Exhibition**

'Save-Energy 2004' Exhibition was organized in February 2004, wherein energy efficient products, services and concepts were displayed for the information of all classes of consumers. Besides compact fluorescent lamps, electronic chokes energy savers, variable frequency drives, energy efficient motors & transformers, solar water heating systems, photo-voltaic devices, wind turbines etc., were displayed. Technologies adopted by Industry and Utilities to save energy in their respective areas were also displayed.

Students displayed innovative models depictive of futuristic ideas to conserve energy and resources. Consultants rendered advice to inquisitive public. Concurrently with the Exhibition, a seminar was held wherein the manufacturers of energy saving equipments have presented technical papers highlighting the importance of Energy Conservation and the simple ways and means of achieving the objectives.

### **Industry & Energy Savers' Clubs**

Energy Savers' Club comprising Industries of the Jeedimetla Industrial Area was formed in February 2004, to motivate the Industries to practice energy efficiency and its conservation to improve their bottom-line. Their activities were periodically monitored through interaction meets. Meetings were held with industries of Sanathnagar and Uppal Industrial Areas and Members of the Plastics Manufacturers Association from April to June 2004, to persuade them to start Energy Savers' Clubs.

In association with AP Pollution Control Board, a Workshop was organized in May 2004, on "Cleaner Production Technologies and Strategies in Cement Industry" disseminating latest knowledge on Energy Conservation and Environment for the benefit of the Cement Industry.

## **Commercial Sector**

A Round Table Discussion on “Energy Efficiency Building Codes” was organized in July 2004, with participation of USAID, HUDA , National Academy of Construction, CII, Govt. of A.P, Builders Association, Institutes, Manufacturers, Architects, Engineers and Public. Recommendations were formulated setting norms for energy consumption in Commercial Buildings. The same were forwarded to the State Government and the Bureau of Energy Efficiency for necessary follow up action..

A Workshop was conducted on “Energy Management in Hotels & Hospitals” the major consumers of Energy in the Commercial Sector, in collaboration with the Federation of AP Chamber of Commerce and Industry during November 2004. The participants were provided with the guidelines to improve specific energy consumption by Experts and they shared their experiences. A display of energy efficient products was also organized for the benefit of the delegates.

## **Energy Audits**

The guidelines for fair and effective energy audits were formulated and a panel of energy auditors was prepared for the benefit of all consumers, especially the industrial & commercial sectors. The energy audits were organized in Jeedimetla Effluent Treatment Plant, Nizam Institute of Medical Sciences and Vivekananda Hospital and several measures were suggested to achieve 10 to 15% energy savings. Energy audit of Dwaraka Tirumala Devasthanam revealed huge savings of energy. All of them have already implemented some of the recommended measures and achieved good results in saving energy. The energy saving per annum is estimated to be more than 5 lakh units costing more than Rs. 25 Lakhs

## **Educational Institutions**

Three programmes on Energy Conservation Awareness were conducted for Principals and Teachers of Schools and Engineering colleges during the month of July 2004. Follow up visits by Mission Members to schools encouraged them to practice saving measures and spread the message home through students. Guide lines to form Energy Savers’ Clubs (ESCs) were communicated to all Engineering colleges and Schools. Several of them have already formed the Clubs and commenced the activities

## **Non-Conventional Energy**

The ECM encouraged entrepreneurs to set up plants for bio-diesel and bio-mass power plants. Bio-diesel produced by an entrepreneur in a pilot plant was exhibited in ‘Save Energy 2004’ Exhibition and its effectiveness was demonstrated by running a diesel engine and a motor vehicle.

The ECM also collaborated with the Non-Conventional Energy Department of Andhra Pradesh (NEDCAP) and organized a business-meet of ‘Solar Thermal Systems & Energy Efficiency’ during October, 2004. ECM also actively participated in yet another workshop by NEDCAP on “Wind Power Development and Energy Efficiency” in December 2004 by providing speakers on Energy Efficiency. Both workshops were funded by IREDA.

## **Domestic Sector**

Handouts on energy efficient lighting, highlighting tips to cut costs on energy consumption were published in English and Telugu and distributed in several residential complexes and also to Krishna Pushkaram Pilgrims. The residents of the Pujita Estates were explained and demonstrated the reduction of their energy bills by a talk and demonstration arranged during a meeting in their complex in May, 2004. An intensive awareness campaign is proposed to be launched during 2005.

## **Utilities & Agriculture:**

With the permission from APTRANSCO, ECM carried out studies of the Aziznagar and Himayatsagar 33/11 KV Substations and the Agricultural services connected to them. In cooperation with the Utilities staff and Farmers, a huge stock of 2 KVAR capacitors already purchased by the Utilities was unearthed and 32 Nos were connected to the Agricultural pump motors to improve their Power Factor resulting in saving energy other wise lost. Utilities are being persuaded to install capacitors on more pump sets and also a 2 MVAR capacitor on the 11 KV bus to further save energy.

## **Seminars & Lectures**

Some of the lectures organized by ECM during the year are \*World Class Energy Efficiency at home and at work place by Er. S.Srinivas- CII \*Demand Side Management for Utilities – Innovative Techniques by Er. K.S.Venkatagiri-CII \*Opportunities from E.C.Act 2001 Implementation by Er. D.Pawan Kumar- NPC. \*Energy Efficiency practiced by Bharat Heavy Electricals Ltd by Er. A.P.C.Rao- BHEL and \*Energy Conservation-Singareni Collieries in the Forefront- A lecture session.

## **Transportation**

Tips to save energy in the form of petroleum products, slogans, posters and other forms of literature published by the Petroleum Conservation Research Association (PCRA) were procured in abundance and distributed in schools and colleges. They were also distributed on all important occasions and meetings of the Institution of Engineers, APSC.

## **Other Activities**

Committed to environment and resource conservation of embodied energy, ECM preferably uses recycled paper (hand made) only for all its stationery and seminar folders. Both sides of paper are invariably used and one-side used paper is utilized for all drafts and office copies. The Plastic items are avoided for serving food items & beverages during meetings and functions of not only ECM but also the entire IE (I), APSC. On interaction by ECM, Railways have agreed to use recycled paper bags in place of ordinary paper bags for bed sheets supplied in AC coaches on all trains (South Central Railway to start with)

ECM Members, in large numbers, actively participated in the Green Buildings Congress 2004 and Green Business Summit 2004 organized by CII during August and September 2004 respectively. Eight Members of ECM have also actively participated in the workshop on Standards & Labeling organized by the Ministry of Power, GOI at Bangalore during October 2004.

## **ECM Annual Day**

ECM commemorated its first Annual Day on 18 th December 2004, coinciding with National Energy Conservation Week, which was graced by the presence of Er. V.S.Verma, Director General, BEE as the Chief Guest and Mr. Rajeshwar Tiwari IAS , Member Secretary APPCB as the guest of Honour. The certificates were presented to identified Cement manufacturing units, Hotels, Hospitals and Engineering Colleges in recognition of their efforts for energy conservation during the year 2004.

## **Conclusion**

The efforts made so far are encouraging. In any activity, such as conservation, results will not be forth coming unless we show the tenacity and determination. For a start up year the progress is really satisfying. But we are not going to rest on the laurels. We have also observed that some of the groups are not able to show much progress. A fresh look will be taken with a view of re-grouping them. The year 2004, has been a rewarding period of experience and ECM can look back with a sense of satisfaction and recall the happy experiences

