

## Status of National Campaign on Energy Conservation 2006

**Month: October 2006** (status as on January 11, 2007)



**Industrial Sector (Private and PSUs):**

Sl. No.	Activity as per the National Campaign on Energy Conservation	Status	Brief summary of the activity	Remarks / follow up
1	Waste Management program for Executives, Waste Management Program for Non-Executives, Energy Awareness Program for Non-Executive, Training program on upkeep of Gas & Utilities Pipe lines , Review of Equipments Energy Audit by Designated Energy Manager, Review of Energy Performance by Designated Energy Manager/CMD - organized by Rashtriya Ispat Nigam Ltd. – Vishakhapatnan Steel Plant, Visakhapatnam, Andhra Pradesh.	Completed	<p>The following promotional activities were organized :</p> <p><b>Awareness program on energy to non-executives:</b></p> <p>A one day training program was organized on 14<sup>th</sup> October 2006 at T &amp; DC through in-house faculty from energy management department for 17 non executives from major production departments. The topics as given below were designed to facilitate employees to improve their knowledge &amp; skill in the field of energy conservation.</p> <ul style="list-style-type: none"> <li>• Energy scenario of both National and International Steel Industries.</li> <li>• An over view of energy conservation provisions /practices in Indian Steel Industry vis-a-vis in developed countries.</li> <li>• The importance of fuel economy /tips on how to achieve fuel economy in various steel making processes VSP.</li> <li>• Conservation of electrical energy in VSP</li> <li>• Conservation of utilities in VSP.</li> </ul> <p><b>Waste management program to executives and non-executives:</b></p> <p>This program was conducted for 23 executives on 11<sup>th</sup> October 2006 and for 32 non-executives on 30<sup>th</sup> October 2006 at T&amp; DC</p>	



			<p>center with a view to minimize waste generation at the work area and to maximize utilization of metallurgical and other wastes which are generated in course of the steel making process. In-house faculty from environment management, energy management, water management and Lube &amp; Hydraulic departments took the sessions. At the end of the program, group discussion was held on how to minimize /recycle/reuse the various kinds of waste.</p> <p><b>Energy awareness program on upkeep of gas &amp; utilities pipe lines :</b></p> <p>A one day program was organized on 25<sup>th</sup> October 2006 through in-house faculty from energy management department for 25 non-executives from major production shops. The topics as given below were designed to facilitate the employees to improve their knowledge &amp; skill on safety and operation and maintenance of gas &amp; utilities pipelines so as to ensure trouble free operation:</p> <ul style="list-style-type: none"> <li>• The importance of "Gas Safety"</li> <li>• Practice of pressurization/ de-pressurization of gas and utility pipelines.</li> <li>• Maintenance of gas and utilities pipelines.</li> </ul>	
2	Lecture /One day Seminar on Present Energy Scenario in India and world - organized by Industrial Organics Ltd, Ludhiana, Punjab.	Completed	<p>A seminar was organized focusing on the current energy scenario in India and the world and also the energy status 20 years hence. Discussions were also held on measures that could be adopted by industries to alleviate the anticipated energy crisis. The program was attended by 15 participants from production, boiler &amp; operations unit.</p>	

3	<p>Employees Training programme - organized by Indian Rayon – Hooghly, W.B.</p>	Completed	<p>Training session was held for boiler operators and the maintenance staff on 9/10/2006. They were made aware of the following facts:</p> <ol style="list-style-type: none"> <li>1. One Tph of condensate at 3 bar will save Rs. 6 lakhs in the fuel bill each year.</li> <li>2. The same reduces the derating of a 2 Tph boiler from 15 % to 5 % (it means 200 kg boiler for free).</li> <li>3. It saves Rs. 30000 in once water treatment cost.</li> </ol> <p>About 29 persons attended the session.</p>	
4	<p>ENCON awareness program for vendors &amp; horizontal deployment of ENCON proposals - organized by Bajaj Auto Ltd., Waluj, Ahmedabad. (April-Oct.06)</p> <p>Awareness Campaign on Energy Conservation for Non-Technical workmen- organized by Hindustan Paper Corporation Ltd., Nagaon, Assam.</p>	Completed	<p>This activity has been changed and instead the changed activity was performed by Hindustan Paper Corporation Ltd., Nagaon, Assam.</p> <p>An awareness program on Energy Conservation and Environmental management system was organized for non-technical workmen on 27<sup>th</sup> October 2006. The following topics were covered in the session:</p> <ul style="list-style-type: none"> <li>• Impact of Energy Consumption on environment</li> <li>• Greenhouse effect</li> <li>• Tips for reduction of power, water &amp; LPG consumption.</li> <li>• Widespread use of CFL.</li> </ul> <p>The program was attended by 13 workmen and they were encouraged to adopt energy saving practices in day to day life.</p>	

5	<p>Training programme on Energy Conservation for the Employees in the organization - organized by Reliance Industries Ltd., Raigad, Maharashtra.</p>	Completed	<p>A four hour training program on Energy Conservation in Industry was conducted on 31-10-2006 for new engineers inducted in our company. A total of 42 engineers attended the training. The main theme of the training centered around sources and conservation of energy in the industry and a 20 minute video clip on home energy conservation provided by Maharashtra Energy Development Agency.</p>	
6	<p>Visit to Exhibition/ Companies for knowledge acquisition of Energy conservation - organized by GlaxoSmithKline Pharmaceuticals Ltd.- Pokhran Road, Thane (W), Maharashtra.</p> <p>To avoid unwanted energy loss due to loose connection in all power distribution board- organized by Rajasthan Spinning and Weaving Limited, Udaipur, Rajasthan</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Rajasthan Spinning and Weaving Limited, Udaipur, Rajasthan</p> <p>All power panels (LT panels) &amp; Power distribution board was checked on 22nd Oct.2006 (Diwali Holidays) &amp; corrective measure was taken at points of loose connection. Also the Transformer's Primary &amp; Secondary cables &amp; busbar's nut- bolt were scrutinized and rectified of loose connections. This activity was quite beneficial and helped to reduce the energy loss due to looseness.</p>	
7	<p>Knowledge sharing on best practices adopted with neighbouring industries at Khamman district - organized by ITC Limited, Sardar Patel Road, Secunderabad.</p> <p>Load Factor study of Individual Machines- organized by Rajasthan Spinning and Weaving Limited, Udaipur, Rajasthan</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Rajasthan Spinning and Weaving Limited, Udaipur, Rajasthan</p> <p>Load factor study was undertaken for 87 nos. of machines .It was detected that in the Autoconer section, machine no. 11's main motor (15 KW) was consuming power above the desired limits. It was replaced so as to maintain the load factor under permissible limits and thus help to save energy.</p>	

8	<p>Issue of pamphlet about energy conservation to employees - organized by The Madras Aluminium Co. Ltd. – Metturdam, Tamilnadu</p> <p>Energy Cell meeting to identify areas of saving-organised by Rajasthan Spinning and Weaving Limited, Udaipur, Rajasthan</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Rajasthan Spinning and Weaving Limited, Udaipur, Rajasthan</p> <p>An Energy cell meeting was conducted on 25.10.2006 &amp; the last month's progress was discussed. A briefing was done on new energy saving areas of the current month &amp; the saving plan was explained to the participants. In the month of October-2006 a total saving of 1228 units / day was recorded.</p>	
9	Two sessions of training programme on Energy Conservation to employees - organized by Seshasayee Paper and Boards Ltd., Namakkal, Erodo, Tamilnadu.	Completed	Two sessions of training program on energy conservation was held on 11 <sup>th</sup> & 25 <sup>th</sup> of October 2006. The program was attended by 40 participants from various departments. The participants were made aware of the energy scenario and the need to save power in different areas of operation.	
10	Monthly Energy Review with Extruder operator by Goodyear India Ltd. – Ballabgarh, Faridabad, Haryana	Completed	<p>A discussion cum training session was held with the DG Operators where they were informed about the present energy scenario, the effect of soot blowing for good heat transfer in Waste Heat Recovery Boiler, the result of inflation of fuel prices on the conversion cost and the high cost of running the DG.</p> <p>Specific areas of improvements were discussed with the Operators namely operation of HFO Separator, Operation of Air washers , Operation of WHRB and importance of waste reduction .</p> <p>The DG operators were motivated to save energy by optimum running of HFO Separator.</p>	


11	<p>Essay competition for employees organized Ultratech Cement Ltd.- Aditya Birla Group.</p> <p>One day workshop on Energy Conservation- Chambal Fertilizers and Chemicals Limited, Gadepan, Rajasthan.</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Chambal Fertilizers and Chemicals Limited, Gadepan, Rajasthan.</p> <p>A full day workshop was conducted by experts from M/S Devki Energy Consultancy on "Integrated Approach on Energy Management &amp; Real case Studies on Energy saving" on 17<sup>th</sup> of October at Gadepan. On 18<sup>th</sup> October, presentations were made by the members of Energy Group on the process operations being undertaken by CFCL and the improvements achieved so far. Employees from different functional groups attended and benefited from this program.</p>	
12	<p>Small group's – Presentation of Activities - organized by Kesoram Rayon –Hooghly, West Bengal.</p> <p>Survey of Furnace/ Boiler efficiency –organised by Indian Oil Corporation Ltd., Panipat Refinery, Haryana.</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Indian Oil Corporation Ltd., Panipat Refinery, Haryana.</p> <p>A survey of boiler/furnace efficiency was conducted from 30<sup>th</sup> October to 1<sup>st</sup> November by internal members comprising of Senior process engineer, personnel from Production &amp; Power &amp; Utilities department and Chief technical services manager. The oxygen percentage was in the range of 2.2 to 4.8% for the furnaces of the process units and boilers in the TPS. The percentage efficiencies were found to be more than the design specifications for most of the furnaces/ boilers.</p>	


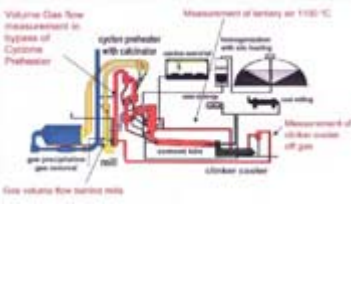

13	Creating awareness through advertisement in print media for Save Electricity & Protect Environment - organized by Excel Inds. Ltd.- Roha, Maharashtra.	Completed	Creating awareness in people for Energy & Environment is the first step to save Energy and protect Environment. An advertisement was published in local daily newspapers with this appeal and to inculcate in the public a consciousness towards an immediate need to do so.	
14	Lecture on energy savings - organized by National Fertilizers Ltd. Vijapur, Guna, M.P.	Completed	<p>A presentation on "Importance of Energy Conservation with special reference to NFL Vijapur" was delivered by S.N. Sinha, Sr. manager, on 31<sup>st</sup> October, 2006. The topics covered were:</p> <ul style="list-style-type: none"> <li>• Importance of Energy Conservation in the context of current global energy scenario as well as in the scenario of new fertilizer policy,</li> <li>• Performance of Vijapur-I and Vijapur-II plants on the front of energy saving,</li> <li>• Ways and means of energy conservation,</li> <li>• Calculation for impact of steam losses, cost of generation of steam and power,</li> <li>• Details of Energy Saving Schemes implemented at NFL Vijapur etc.</li> </ul> <p>The program was attended by around 50 employees.</p>	



15	<p>Energy Awareness Program in Refractory Material Plant-2 organized by – Bhilai Steel Plant (Bhilai).</p> <p>Presentation on Energy Saving organized by - Indian Farmers Fertilizer Cooperative Limited, Phulpur, Allahabad, Uttar Pradesh.</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Indian Farmers Fertilizer Cooperative Limited, Phulpur, Allahabad.</p> <p>On 9<sup>th</sup> October 2006, a presentation was made on the conversion of the largest Naptha based Ammonia-Urea Complex in Uttar Pradesh into a Gas based unit in line with government policy encouraging gas based urea manufacturing units. According to Dr. U.S. Awasthi, Managing Director, the switchover from Naphtha to LNG would entail substantial subsidy savings of more than Rs. 1000 crore annually to government keeping in view the prevalent price differential in Naphtha/FO and Re-gasified LNG.</p> <p>Necessary modifications were carried out in Ammonia plant 1 &amp; 2 &amp; all the 4 service boilers for change over of Feed/ Fuel from Naphtha /Fuel Oil to RLNG (Re-gasified liquid natural gas). GAIL laid a dedicated 139 kms. long Spurline to connect Phulpur unit to HBJ pipeline for supply of RLNG.</p>	
16	<p>Energy Conservation seminar for MIS department - organized by Trident-Abhishek Inds. Ltd, Barnala, Punjab</p>	Completed	<p>An energy conservation seminar was held on 15/10/06 which was attended by 10 persons. The followings points were discussed:</p> <ul style="list-style-type: none"> <li>• The importance of energy resources and its relevance to the industry</li> <li>• The scenario of power generation in India and in the state of Punjab</li> <li>• Inculcating consciousness towards power saving in daily life of a commoner can help to lessen the energy losses.</li> </ul> <p>After the seminar following queries surfaced up and were subsequently answered:</p> <ul style="list-style-type: none"> <li>• How CFL consumes less power than a normal conventional bulb?</li> </ul>	

			<ul style="list-style-type: none"> <li>• How electronic chokes are better in power saving than the conventional copper chokes?</li> <li>• How VFD (variable frequency drives) saves power?</li> </ul>	
17	Ten tips on Energy Conservation for in house magazine SANKALP by Indian Petrochemical corporation Ltd, Nagpur, Maharashtra	Completed	<p>This activity has been changed and instead a training activity on solar cooking system was organized.</p> <p>Installation &amp; commissioning of a Paraboloid Type Solar Cooker was done. 15 canteen staff members attended and were trained on solar cooking system. This is a step in direction of adopting renewable source of energy.</p>	


#### Commercial Sector (Private and Government Buildings):


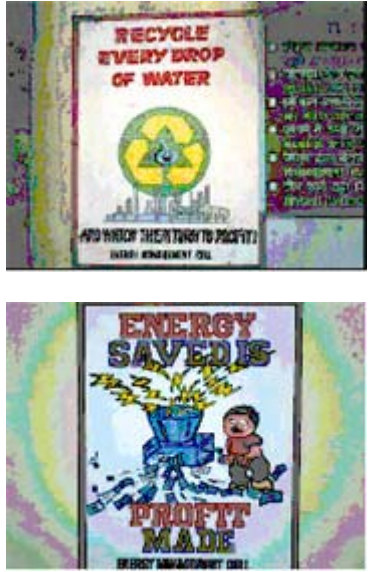
Sl. No.	Activity as per the National Campaign on Energy Conservation	Status	Brief summary on the activity	Remarks / follow up
18	India – IEA Joint Workshop on Energy Efficiency in Buildings & Building Codes- organised by Bureau of Energy Efficiency , New Delhi	Additional Activity Completed	<p>To spread consciousness about energy conservation in buildings and building codes, a workshop was held at Le Meridian, New delhi on 4-5<sup>th</sup> October. It was attended by all stakeholders. Presentations &amp; lectures were delivered on the following topics:</p> <ul style="list-style-type: none"> <li>• Current Status of Energy Efficiency Building Codes in India by Dr. Ajay Mathur, Director General, BEE.</li> <li>• Energy Efficiency Improvement in buildings</li> <li>• Experience of OECD countries with building codes and energy efficient retrofitting: Achievements and Failures.</li> </ul>	<p><b>Potentials New Buildings</b></p> <ul style="list-style-type: none"> <li>• New buildings can be built with much lower energy consumption <ul style="list-style-type: none"> <li>• Examples show only 33 or 26 % energy use compared with today's standard for most countries</li> </ul> </li> <li>• New buildings can already today be built with Zero Net Energy</li> <li>• The potential for saving is enormous !</li> </ul> 


			<ul style="list-style-type: none"> <li>• Incorporating Energy Performance Requirements into Building Codes Across Many Climate Zones: Australia 's Experience</li> <li>• Financing Energy Efficient Buildings</li> <li>• Green building rating recognizing energy efficient buildings and beyond.</li> </ul>	<p style="text-align: center;"><b>Building codes for India</b></p> 
19	Fourth One-day Cement Sector Task Force Program on Energy Conservation- organized by Bureau of Energy Efficiency, New Delhi	Additional Activity Completed	<p>The fourth Cement Sector Task Force program was held in collaboration with IGEN Project of GTZ at India Habitat Centre, New Delhi on 17th October 2006. During the program, a presentation was delivered by NCCBM regarding Specific Energy Consumption Norms for Cement Sector under the EC Act, 2001, as developed by National Council for Cement and Building Materials and also presentations from Cement Industry on Best Practices on Energy Conservation. Presentations were given on the following topics :</p> <ul style="list-style-type: none"> <li>• Cutting Edge Technology Pilot Project – Gas Flow Measurement Systems for Cement Plants optimization</li> <li>• Best Practices on Energy Conservation</li> <li>• Energy Consumption norms for Cement Sector under Energy Conservation Act - 2001</li> </ul>	 


			<ul style="list-style-type: none"> <li>• Energy Management leads to Sustainability</li> </ul> <p>A total of 97 nos. of participants from cement industries, Ministry of Power, BEE, GTZ etc. were invited to attend the workshop.</p>	 
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### Domestic Sector


Sl. No.	Activity as per the National Campaign on Energy Conservation	Status	Brief summary on the activity	Remarks / follow up
20	Energy Conservation awareness programme for ladies belongs to Self-Help group - organized by Tuticorin Alkali Chemicals and Fertilisers Ltd. – Tuticorin, Chennai, Tamil Nadu.	Completed	A programme was held for ladies belonging to a self-help group (an organization sponsored by Tamil Nadu Govt.) on 28/10/2006 at our factory premises. 26 members belonging to Tuticorin Multipurpose Social Service Society, Bishop's House, Tuticorin participated in the programme. A write-up of about 7 pages in English and 4 pages in local language (Tamil) indicating the importance of Energy Conservation and Healthy Environment was sent to the society for distribution to the participating members two days before the programme. The participants were made conversant with the role and functions of Bureau of Energy Efficiency. Lectures on	



			<p>energy conservation and environmental aspects covering the areas “Forms of Energy and its classification”, “Energy Scenario in the world/India”, “Tips on Energy Conservation”, “Air Pollution/Acid Rain”, “Global Warming”. etc were delivered. The participants were then taken for a plant visit. A quiz programme was also conducted and the first best three participants were awarded a prize. They were motivated to drive home the message that improving energy efficiency not only saves environment but also saves money.</p>	
21	Energy Conservation campaign - organized by Ballarpur Inds. Ltd- Ballarpur unit, Chandrapur, Maharashtra.	Completed	<p>Posters with the following slogans conveying the message of Energy Conservation and Management were displayed at the mills.</p> <ul style="list-style-type: none"> <li>• Energy saved is profit made.</li> <li>• A little from everyone can save a lot.</li> <li>• Recycle every drop of water.</li> </ul> <p>Also tips on losses of compressed air and steam etc. were discussed and displayed at various locations in the plant.</p>	

22	<p>Display the 10 energy conservation slogan at colony/ factory premises - organized by The Madras Aluminium Co. Ltd. – Metturdam, Tamilnadu</p> <p>Energy conservation program for residents of B-type quarters-organized by-Hindustan Paper Corporation Ltd. , Nagaon, Assam.</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Hindustan Paper Corporation Ltd. , Nagaon, Assam.</p> <p>The housewives of B-type quarters were made aware of the principles of energy conservation and the need to save environment in a seminar held on 24<sup>th</sup> October. Lectures were also delivered on optimal use of LPG &amp; water at homes, saving of energy by use of CFL, effects of pollution and other related global &amp; local issues. A total of 58 housewives attended the program.</p>	
23	<p>A quiz programme on “Energy Conservation” for the college students will be conducted at SPB Colony Community Centre and three prizes will be awarded - organized by Seshasayee Paper and Boards Ltd., Namakkal, Erode, Tamilnadu.</p> <p>Awareness program on Energy Conservation-organised by Indo Gulf Fertilizers, Sultanpur, Uttar Pradesh.</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Indo Gulf Fertilizers, Sultanpur, Uttar Pradesh.</p> <p>The 4th Awareness Programme on Energy Conservation was held on 30th October 2006 in Aditya Birla Public School, IGF Campus. In this programme, the following topics were discussed:</p> <ul style="list-style-type: none"> <li>• Types and Sources of Energy</li> <li>• Role of Energy in daily life.</li> <li>• Need for Energy Conservation</li> <li>• Tips for Energy Conservation</li> <li>• Water conservation and how it can help in conserving energy.</li> </ul> <p>All participants were motivated to spread the message of Energy Conservation to one and all.</p>	

24	<p>Programme on energy Conservation for housewives organized by – IPCL Gandhar.</p> <p>Seminar on Energy saving tips at home &amp; oath taking ceremony to adhere to any 3 of the identified area for improvement during next 3 months-organised by Hindalco Industries Ltd., Renukoot, U.P.</p>	Completed	<p>This activity has been changed and instead the changed activity was carried out by Hindalco Industries Ltd., Renukoot, U.P.</p> <p>Officials of IE &amp; Technical Cell, Hindalco organized a workshop on Energy Conservation Awareness on 24<sup>th</sup> October 2006 for the school children of Aditya Birla Public School at Conference Hall No # 5. Altogether 70 students attended this workshop. During the said workshop a brief lecture on need of Energy Conservation and ways to conserve it was delivered. Following topics were covered:-</p> <ol style="list-style-type: none"> <li>1. Global Energy Scenario.</li> <li>2. Need of Energy Conservation.</li> <li>3. Electrical Energy saving tips at home.</li> <li>4. LPG saving tips at home.</li> <li>5. Transportation fuel saving tip.</li> <li>6. Quiz and prize distribution</li> </ol> <p>At the end of the program, commitment was taken from the students for implementation of the energy saving tips of the three identified areas of energy (Electrical Energy, LPG and Petrol) and they were also encouraged to spread the message to friends and public .</p>	
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## Educational Institutions

Sl. No.	Activity as per the National Campaign on Energy Conservation	Status	Brief summary on the activity	Remarks / follow up
25	Arranging nearby school/ college student factory visit for Energy Conservation awareness and energy conservation measures implementation - organized by Thyssenkrupp Electrical Steel (I) P Ltd.- Nashik, Maharashtra	Completed	A plant visit was arranged for 36 students of second year in chemical engineering of K.K. Wagh College of Engineering, Nashik on 18 <sup>th</sup> October. The students were highly motivated by being exposed to energy conservation principles adopted at the unit and other technological procedures being implemented.	
26	“Save Energy” “Save Environment” poster competition for school children. - - - - organized by Excel Inds. Ltd.- Roha, Maharashtra.	Completed	A poster competition was organized for children of 3 <sup>rd</sup> standard to 7 <sup>th</sup> standard of 3 primary schools on the theme of ‘Save Energy’ & ‘Save Environment’. In total 140 students participated and the competition received an appreciation both from parents and the residents of the town as a good step to infuse the concept of energy conservation in the minds of the young.	
27	Awareness class on energy conservation for the students of Bhavan’s Newsprint Vidyalaya, Newsprint Nagar - organized by Hindustan Newsprint Ltd., Kerala.  Awareness campaign (2 hours seminar) on Energy Conservation among the children (class-9 & 10) of higher secondary school, Jagiroad - organised by Hindustan Paper Corporation Limited, Nagaon, Assam.	Completed	This activity has been changed and instead the changed activity was performed by Hindustan Paper Corporation Limited, Nagaon, Assam.  On 25 <sup>th</sup> October, an awareness program was conducted for class 10 students of Jagiroad Higher secondary school, where they were briefed about environmental management system & energy conservation measures like use of CFL etc., Greenhouse effect & they were also imparted with tips to avoid wastage of energy at home. 41 students attended the program.	

28	Implement small group activity in nearby school to create awareness among children about energy conservation activities and launching energy conservation related programs in school - organized by Hindalco Inds. Ltd., Sambalpur, Orissa.	Completed	<p>Small group activity was introduced in the near by school one year back. In continuation of the above program an awareness workshop on energy conservation was conducted in the Saraswati Sishu Vidya Mandir, Hirakud. The main aim of the said program was to highlight the present threat in the field of energy and the associated global environmental issues and the different conservation measures. In the program the Vice President of Hirakud Smelter and the AGM, Mechanical were present on behalf of Hindalco. The program was conducted in the presence of the Principal &amp; organising committee of the school. Also present were the 30 teachers and 150 children of class 8<sup>th</sup> to 10<sup>th</sup>. Inaugurating the program, our Vice President highlighted the need of energy conservation in all areas for a sustainable and developed country. He also focused on the innovative approaches for energy conservation measures and declared to provide necessary help to the school in implementing energy conservation projects. Some practical examples in implementing energy conservation projects were also discussed. Lastly, there was a question and answer session.</p>	 
29	Energy conservation awareness program-organised by Kesoram Cement, Karimnagar, Andhra Pradesh	Additional Activity Completed	<p>The students of India Mission Secondary School, Basantnagar were infused with the concepts of energy conservation &amp; efficiency through an ENCON awareness session held on 7<sup>th</sup> October.</p>	