

07 December 2011



**Government of Kerala**  
**Kerala State Energy Conservation Awards**  
**2011**



**Declaration**  
**07 December 2011, 3 PM P R Chamber,**  
**Secretariat**

It is the 15th State Energy Conservation Awards , an appreciation for noble and concerted effort towards energy conservation in the State of Kerala. The State Level Monitoring Committee for Energy Conservation in Kerala, on evaluating the various entries for State level awards selected organisations/individuals for conferring Awards and Commendation Certificates.

<b>Category</b>	<b>Item Conferred</b>	<b>Name of the Organisation</b>
<b>LARGE SCALE ENERGY CONSUMERS</b>	<b>Best Performance Award</b>	<b>HLL Life Care Limited, Peroorkada</b>
Energy saving measures are <ul style="list-style-type: none"><li>• Installed new fuel efficient 10 ton Thermax boiler having high efficiency up to 92% with air pre-heating (APH) system.</li><li>• Replaced Electrical Heated Dehumidifiers with Energy efficient Steam Heated Dehumidifiers.</li><li>• Indigenously modified old type Electrical heated Dehumidifier to energy efficient Steam heated dehumidifier.</li><li>• Installed and commissioned 40HP VFD to FD fan of Thermax boiler. Reduced motor rpm.</li><li>• Installed Light energy saver to light feeder.</li><li>• Installed a compressor near to the load at packing section thereby reduced load in the compressor plant</li><li>• Replaced Sodium Vapour lamps by LED lights. and CFL lamps by energy efficient T5 lamps</li><li>• Replaced old rewind induction motors with new Energy efficient Class EFF1 Induction motors.</li><li>• Replaced old type steam heated tumbling machine by new fuel efficient tumbling machine.</li></ul>		

<b>LARGE SCALE ENERGY CONSUMERS</b>	<b>Commendation Certificate</b>	<b>MRF Ltd, Kottayam..</b>
<p>Energy saving measures are</p> <ul style="list-style-type: none"> <li>• Replacing old slip ring induction motor with new energy efficient squirrel cage motor with VFD</li> <li>• Derating of motors</li> <li>• Usage of CFLs in place of MV lamps</li> <li>• Interlocking cooling tower fan with cooling tower circulating pumps</li> <li>• Providing VFD and PLC control for Tyre curing trench fill pump and switching off the pump after filling all press bladders</li> <li>• Interlocking man cooler fans, lightings and knife heaters with Tyre Building Machine</li> <li>• Replacing heavy fan blade with FRP in cooling Tower</li> <li>• Usage of VFD in Cooling tower for speed reduction during rainy season / winter</li> <li>• Process improvement; Cure time reduction in Tyre Curing Process</li> </ul>		
<b>LARGE SCALE ENERGY CONSUMERS</b>	<b>Commendation Certificate</b>	<b>Wonderla Holidays, Ernakulam</b>
<p><b>Some of their Energy saving measures are.</b></p> <ul style="list-style-type: none"> <li>• Wave pool 2- Design Modification</li> <li>• Installation of energy efficient lighting system.</li> <li>• Replacement Of CRT TV with LCD TV</li> <li>• Derating submersible pumps .</li> <li>• Installation of Solar Water Heaters &amp; Solar Garden Lights</li> <li>• Training Program in Energy Conservation</li> </ul>		
<b>MEDIUM SCALE ENERGY CONSUMERS</b>	<b>Commendation Certificate</b>	<b>Coconut Lagoon. Kottayam</b>
<p>Some of their Energy saving measures are</p> <ul style="list-style-type: none"> <li>• Introduction of Methane gas for cooking instead of LPG</li> <li>• Installation of Solar LED's for pathway lights.</li> </ul>		

- Gas fired tandoor has been replaced with coconut shells, tender coconut husks, fired one.
- Introduction Solar Boat.
- Installation of Solar water heaters
- Periodic Energy conservation Awareness programmes for the staff
  - ▶▶ *Recycled Ayurveda Oil Is Used In Lamps*

**Departments/ Non-profit organizations:**

**Commendation Certificate**

**PWD Electrical Wing Thiruvananthapuram**

- Some of their recent energy saving programmes adopted are.
- Use of 5 star rated fans
- Use of star rated air conditioners
- Use of occupancy sensors in offices such as Secretariat
- Replacing inductive choke by electronic choke
- Use of LED lighting for facade lighting in Old assembly Hall, Secretariat
- Use of Solar water heater.

**RESEARCH AND INNOVATION**

**Best Performance Award**

**Dr P S Chandramohanan Thiruvananthapuram**

Dr P S Chandramohanan has been conferred the award considering his research in "drainage power recovery scheme from distribution transformers". This is a technique to recover and utilize the power usually wasted as heat in the distribution transformers due to the harmonics present in the modern power system as a result of growing share of non-linear loads. This technique provides better energy efficiency and improved power factor for the power network. It also reduces the harmonics and harmonics related losses in the power grid. The proposed scheme can improve the energy efficiency and the life of the distribution transformers

Dr. P.S.Chandramohan is Professor & Chairman of Department of Electrical and Electronics Engineering in the Amritapuri campus of Amrita University. He is former Director of ANERT (Agency for Non-conventional Energy and Rural Technology), Govt. of Kerala and former Principal of Govt. Engineering College, Barton Hill, Trivandrum and former Principal of Sree Chitra Thirunal College of Engineering, Trivandrum. He was Professor of Electrical Engineering at College of Engineering Trivandrum.

<b>RESEARCH AND INNOVATION</b>	<b>Commendation Certificate</b>	<b>Dr Shaji James</b>
<p>Dr. Shaji James P., has been working in the fields of bioenergy and energy conservation in agriculture for the last 20 years in Kerala Agricultural University. He graduated in Agricultural Engineering from Allahabad University in 1986 and started his career as a Junior Assistant Professor in Kerala Agricultural University in 1987. He took his masters degree in Farm Power, Machinery and Energy from the Kelappaji College of Agricultural Engineering and Technology of Kerala Agricultural University.</p> <p>He served as a scientist in Regional Agricultural Research Station, Pattambi (Kerala Agricultural University), during which he studied the energy requirement in wet land ploughing leading to the development and popularization of an energy saving wet land puddler. The Metal Industries Ltd., Shoranur (a Govt. of Kerala undertaking) has started manufacturing the implement and the EMC has certified its' energy efficiency.</p> <p>Subsequently, he took his doctoral degree in Bioenergy from the Faculty of Agricultural Engineering of Tamilnadu Agricultural University, Coimbatore. Presently he is the head of Krishi Vigyan Kendra- Palakkad</p> <p>Some of the energy conservation activities are.</p> <ul style="list-style-type: none"> <li>• Portable and Split Biogas Plant for Domestic Waste Management and Energy production</li> <li>• Energy Saving Portable Light Trap for pest monitoring in rice cultivation</li> <li>• <i>High Rate Anaerobic Bioreactor for Energy Conversion of Organic Effluents</i></li> </ul>		
<b>BUILDINGS</b>	<b>BEST PERFORMANCE AWARD</b>	<b>BSNL Telephone Exchange, Palarivattom</b>
<ul style="list-style-type: none"> <li>• Some of their Energy saving measures are</li> <li>•</li> <li>• Replacement of inefficient AC Packages: Inefficient life expired water cooled PAC plants were replaced with efficient air cooled PAC units.</li> <li>• Saving in water consumption due to change of PAC units from Water cooled to air cooled units:</li> <li>• Downsizing of air conditioned area and AC plant room by providing partition:</li> <li>• Replacement of FI. fittings with energy efficient T5 lamps</li> <li>• Making use of natural light &amp; ventilation:</li> <li>• Maintaining power factor at unity</li> <li>• Life expired inefficient AC units were replaced with 5 star rated split type AC</li> </ul>		

units.

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<b>BUILDINGS</b>	<b>BEST PERFORMANCE AWARD</b>	<b>Regional Cancer Centre, Trivandrum</b>
Some of their Energy saving measures are		
<ul style="list-style-type: none"><li>• Remodeling of Central A/C and replacement of complete water pumps</li><li>• Installation of chilled water cooling pumps for Radiotherapy Machine</li><li>• Installation of CFL Lamps in new Radiotherapy Building &amp; Street lights</li><li>• Using energy efficient Lamps in new Radiotherapy Building</li><li>• Installation Solar water heating system</li><li>• Training Program in Energy Conservation for workers, supervisors, Engineers and Others</li></ul>		
<b>ENERGY CLINIC VOLUNTEERS</b>	<b>BEST PERFORMANCE AWARD</b>	<b>Ms. S Komalam, Trivandrum</b>
Energy Clinic is a unique programme of EMC in energy conservation activities in domestic sectors through women change agents. Through awareness, 10-15 % of total energy can be saved. The energy clinic is to provide valuable information to the rural population on energy conservation, energy efficient equipments, right methods of energy use to reduce wastage etc. At present there are 180 trained women volunteers in the State In connection with the Energy Conservation Month activities, best energy clinic volunteers are awarded prizes based on their performance.		
<b>CERTIFIED ENERGY MANAGER</b>	<b>BEST PERFORMANCE AWARD</b>	<b>S Sreenuvasan, BSES Cochin,</b>
Shri S.Seenuvasan Energy manager of BSES Kerala power limited a certified energy manager/ auditor with 9 years plus experience in power plant in the field of operation, Maintenance planning, Energy management .In his personal capacity as Certified energy auditor, he has successfully implemented ISO 50001:2011 , implemented various energy conservation activities in bkpl, conducted various internal training programmes in energy conservation.		
<ul style="list-style-type: none"><li>• Some of the Energy saving measures:</li><li>• High Pressure boiler feed pump destaging.</li></ul>		

- Auxiliary cooling water pump uprating.
- Cooling tower Nozzle replaced with 4 stage spray nozzle
- Installation of chiller condensate recovery system

**CERTIFIED ENERGY  
AUDITOR /MANAGER**

**Commendation Certificate**

**Sudheendran M**

Shri Sudheendran M, is presently working as Superintending Engineer (Electrical) in BSNL Electrical Circle, Trivandrum with statewide jurisdiction since 2008 have 31 years of service in P&T, DOT and BSNL. He is active member of many professional bodies like ISLE, ISHRAE, SEEM, IETE etc. he is designated Electrical Inspector by Govt. of India for Dept. of Telecom, Dept. of Posts and BSNL and a Certified Energy Auditor of BEE he has made following remarkable contributions.

- Conducted Energy audits at BSNL buildings and different buildings of Kerala State Government etc
- Conducted several awareness programs on Energy conservation.
- Undergone training program and participated in seminars on Energy Conservation and Efficiency.

**SCHOOLS**

**BEST PERFORMANCE  
AWARD**

**Mulamana.V&H.S.S,  
Vamanapuram,  
Thiruvananthapuram**

Mulamana V & H.S.S is having three sections H.S, V.H.S.S, and H.S.S in one campus situated in the remote and backward area of Trivandrum – (Dist.) Kerala (State).

Some of the energy saving measures that helped them to achieve award are.

- Energy survey and energy audit.
- Training programme for manufacturing and maintenance of Energy efficient equipment.
- Conducted seminars on domestic energy conservation.
- CFL distribution to domestic consumers at free of cost

- Exhibitions

<b>SCHOOLS</b>	<b>BEST PERFORMANCE AWARD</b>	<b>Govt U P School, Puttumanoor</b>
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Govt U P School, Puttumanoor, established in 1918, is situated in puttumanoor ,one of the backward area near puthencruz in Ernakulum district. It caters to the educational needs of the people of different walks of life irrespective of their caste creed religion and sex.

Some of the energy saving measures that helped them to achieve award are.

- Energy survey and energy audit.
- Training programme for manufacturing and maintenance of Energy efficient equipment.
- Conducted seminars on domestic energy conservation.
- CFL distribution to domestic consumers
- Energy quiz
- Exhibitions

<b>COLLEGES</b>	<b>BEST PERFORMANCE AWARD</b>	<b>Christ College Irinjalakuda</b>
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Christ College Irinjalakuda, established in 1956 by the Devamatha Province of the Carmelites of Mary Immaculate (CMI), ushered in the fulfillment of a long cherished dream of the people of Irinjalakuda.

- Some of the energy saving measures that helped them to achieve this year's award are
- Rainwater harvesting
- Installation of solar water heating and CFLs for the College hostel.
- Construction of "thadayanas" in the garden to augment ground water recharging .
- Installation of a solar cum wind (Hybrid) Energy Park.

<b>COLLEGES</b>	<b>Commendation Certificate</b>	<b>Toc H Institute of Science &amp;</b>
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Some of the energy saving measures that helped them to achieve this commendation Certificate are.

- Photo voltaic solar energy systems
- Solar based LED lighting scheme
- Hybrid Two wheeler using solar power and fuel.
- Electric Bike with regenerative braking
- Energy meters kept connected to each building for monitoring and controlling the energy consumption of the same.
- Creating awareness among the students about the need for Energy Conservation
- Promoting Energy Efficient Research Projects.

**INDIVIDUALS**

**Commendation  
Certificate**

**Y. George, Alappuzha**

Shri Y. George is basically a mechanical engineer; He served in Kerala state transport Cooperation in various position such as Asst. Depot Engineer, Depot Engineer, DTO, Works Manager etc. He was the Works Manager of fuel Cell at the time of his retirement from KSRTC in Feb 2002. He had conducted several training programmes and depot study to conserve fuel and oils. He is a resource person for fuel and oil conservation programme organised by PCRA.

Some of the energy conservation activities are.

- Driver Training programme
- Transport Workshop
- Model Depot project Study

**INDIVIDUALS**

**Commendation  
Certificate**

**Nazir V K,**

Shri Nazir V K. is working as a consultant in Bio energy for last 9 years. He worked as Asst. Manager in KEL (Kerala Electrical Allied Engineering Co. Ltd).for 5years and as Project Engineer in ANERT, Govt of Kerala ( on deputation)- for 4 years. His specialization is in Integrated solid waste management using anaerobic process and Night soil based biogas plant for treating Human excreta, Kitchen waste, Fish waste and Slaughter, Organic waste.

- Some of the energy conservation activities are.
- Installed and commissioned 200 numbers of different capacity of biogas plant



at different locations of Kerala.

- Installed and commissioned Bio gas plant based on slaughter waste .
- Installed and commissioned Bio gas plant based on Fish Market Waste.
- Installed Bio gas plant for Little Flower Hospital,.

**MANUFACTURERS OF  
ENERGY EFFICIENT  
EQUIPMENT**

**Commendation  
Certificate**

**Solenergees, Palakkad.**

SOLENERGEES is Manufacturer, System Integrator and distributor of solar photovoltaic systems.

- Major Products manufactured
- Solar Lantern with CFL
- Solar Lantern with LED
- Solar Home System
- Solar Street lighting system
- Solar Generator
- CFL Road Lighting luminaries
- LED Road Lighting luminaries
- Solar Street light luminary

Awards will be given in a function to be organised on National Energy Conservation Day at 11 am on December 14<sup>th</sup> .