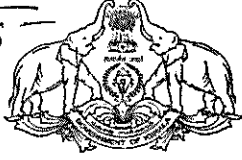


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കേരള സർക്കാർ  
Government of Kerala  
2015



Regn. No. KERBIL/2012/45073  
dated 5-9-2012 with RNI

Reg. No. KL/TV(N)/634/2015-17

കേരള ഗസറ്റ്  
KERALA GAZETTE

അസാധാരണം  
EXTRAORDINARY

ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്  
PUBLISHED BY AUTHORITY

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GOVERNMENT OF KERALA

Power (A) Department

NOTIFICATION

G. O. (P) No. 21/2015/PD. Dated, Thiruvananthapuram, 11th June, 2015.

S. R. O. No. 401/2015.—In exercise of the powers conferred by the section 18 of the Energy Conservation Act, 2001 (Central Act No. 52 of 2001), the Government of Kerala hereby issue the following directions regarding regulation of the energy consumption standards for equipments and appliances, namely:—

DIRECTIONS

1. Short title and commencement

- (1) These directions may be called the Energy Conservation (Energy Consumption Standards for Equipments and Appliances) Directions, 2015.
- (2) They shall come into force at once.

PRINTED AND PUBLISHED BY THE SUPERINTENDENT OF GOVERNMENT PRESSES  
AT THE GOVERNMENT CENTRAL PRESS, THIRUVANANTHAPURAM, 2015.

## 2. Definitions

(1) In these directions, unless the context otherwise requires,—

- (a) “Act” means the Energy Conservation Act, 2001 (Central Act No. 52 of 2001).
- (b) “Calibrated and Tested Meters” means meters that are tested and calibrated as per the standards and procedure accepted and approved by Electricity Distribution Licensees in the State of Kerala.
- (c) “Centralised monitoring system for building energy efficiency” means a Centralised system installed in buildings that controls and monitors the building’s mechanical and electrical equipments and system such as heating, ventilating, and air conditioning systems, *lighting systems, power systems, fire systems and security systems*, etc. so that a higher overall energy efficiency can be achieved.
- (d) “Distribution Licensee” means a licensee authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply as defined in Section 2 (17) of Electricity Act 2003.
- (e) “Energy Auditor or audit firm registered with EMC” means Energy Auditor or auditing firm who are registered or empanelled with EMC for conducting Mandatory Energy Audits in Kerala as part of G.O. (Rt) No. 2/2011/PD/dated 1-1-2011.
- (f) “Energy Efficient T5 Fluorescent Lamp” means high energy efficient tubular fluorescent lamp having a diameter of 15.87 mm (5/8 of an inch).
- (g) “Guidelines for conducting Energy Audit by EMC” means any guidelines manuals or formats published by EMC from time to time as part of mandatory energy audit vide G.O. (Rt) No. 2/2011/PD dated 1-1-2011 or for energy audit to be conducted as part of this notification.
- (h) “HT/EHT consumers” means electricity consumers falling under High Tension/Extra High Tension Tariff category of Distribution Licensees in the State.
- (i) “IBR boiler” means any closed vessel exceeding 22.75 liters in capacity and which is used expressively for generating steam under pressure and includes any mounting or other fitting attached to

such vessel which is wholly or partly under pressure when the steam is shut off, which are regulated by Indian Boiler Regulations (IBR).

- (j) "IEC" in this notification means International Electrotechnical Commission which is that prepares and publishes international standards for all electrical, electronic and related technologies.
- (k) "BIS/ISI Marked" means any product that conforms to Indian Standards as stipulated by *Bureau of Indian Standards* (BIS), the national *standards body* of India.
- (l) "Kerala State Energy Conservation Building Code (KSECBC)" means the Energy Conservation Building Code that shall be notified by State Government as per Section 15(a) of the Act.
- (m) "Light Power Density (LPD)" means the maximum lighting power per unit area, usually expressed as Watts per square meter (Energy Conservation Building Code shall be referred to for details).
- (n) "Mandatory Energy Audit" means Energy Audit that shall be conducted by III/III Electricity Consumers of Kerala as per Kerala Government Order G. O. (Rt) No. 2/2011/PD dated 1-1-2011.
- (o) "Non- BR boiler" means coil type water tube boilers, available in a capacity of 200-850 Kg/hr, which are not regulated under Indian Boiler Regulations (IBR).
- (p) "PAT" (Perform Achieve and Trade) means a market based mechanism to enhance cost effectiveness of improvements in energy efficiency in energy intensive large industries and facilities, through certification on energy savings that could be traded.
- (q) "PAT norms" means Energy consumption norms and standards for Designated Consumers as notified by BEE.
- (r) "PAT rules" means the rule made by the Central Government as per the powers conferred by clauses (f), (g), (k), (la), (laa) of section 56 and read with clauses (g) and (o) of section 14, sub-section (1) of section 14A and section 14B of the Energy Conservation Act, 2001 (52 of 2001), which stipulates Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy Consumed.

- (s) "Peak Load period", "Off-peak load" and "Normal load" durations mean the time zones specified in the ToD (Time of the Day) Tariff by Electricity Distribution Licensees as approved by Kerala State Regulatory Commission.
- (t) "Power Factor" means an electrical parameter i.e. ratio of real power flowing to the load to apparent power in the circuit.
- (u) "Public building" means building coming under Government/ Government Aided Institutions/Semi-government Undertakings/Public Sector Undertakings/Autonomous Institutions/Boards/Corporations/Municipalities/Grama Panchayat etc. and/or used for or by the purpose of General Public and/or the buildings categorised as public buildings by Kerala Public Works Department.
- (v) "Registered Energy Manager (REM)" means Energy Manager designated by IIT/EHT consumers, other than the Designated Consumers, as per the qualification and guidelines specified by EMC and registered with EMC.
- (w) "Solar PV power plant" means the Solar Photo Voltaic (SPV) Power Plant that uses sunlight for direct conversion into electricity.
- (x) "State Designated Agency" means any agency designated under clause (d) of Section 15 of Energy Conservation Act, 2001.
- (y) "Star Labelled Appliance" means the energy consuming equipment and appliances which are notified by Bureau of Energy Efficiency, Ministry of Power, Government of India under energy, efficiency Star Labelling program and published in the website of BEE, [www.beeindia.nic.in](http://www.beeindia.nic.in) from time to time in accordance with Sub section (a), (b), (c) and (d) of Section 14 of the Act.
- (z) "Super-efficient equipment" means the energy consuming equipment and appliances whose energy efficiency performance standards are beyond the current levels specified for star labelled appliances/equipments.
- (aa) "T8 Fluorescent Lamp" high energy efficient Tubular fluorescent lamp having a diameter of 26 mm.
- (ab) "THD" means Total Harmonic Distortion which is measure of overall deviation of a distorted wave from its fundamental frequency.

- (ac) "Waste-to-energy and zero discharge" means Energy recovery from waste materials which is the conversion of waste material into useable energy i.e. electricity, heat, fuels etc. and elimination or no discharge of waste discharges into land, air, water etc. that may be treated so that there shall be no harm to living beings and the planet itself.
- (ad) All other words and expressions used in this code, but not defined, shall have the same meaning as respectively assigned to them in the Energy Conservation Act, 2001 (Central Act 52 of 2001).

### 3. Domestic sector

- (a) Residential buildings/households:
- (i) All new residential buildings/households having plinth area of 3000 square feet and above must mandatory install Solar PV power plant with a minimum capacity of 1kWp. The existing buildings/households having plinth area of 3000 square feet and above must mandatory install 1 kW Solar PV power plant within a period of one year from the date of this notification, for meeting partial, or full electrical energy requirement as part of rationalising the use of electrical energy. The installations must comply with the technical standards notified by Kerala State Electricity Regulatory Commission.
  - (ii) All new domestic buildings having a floor area between 2000 sq.ft. to 3000 sq.ft. must install 500W solar PV system as envisaged in the Solar Policy.
  - (iii) In case of new building having a floor area of 2000 sq.ft. above, hot water requirement should be met with solar water heater with a minimum size of 100 litre.
- (b) All grid charged Inverters must be converted to Solar Photovoltaic charging in phased manner within a period of one year from date of this notification, with grid charging only as emergency back-up.
- (c) All the new inverter installations must have Solar Photovoltaic based charging system with tested and calibrated meter for monitoring energy generation and utilisation.
- (d) Automatic facility must be provided to avoid charging of inverters from grid during peak period.

- (e) In case of High rise building solar PV system or Solar PV-wind hybrid system must be provided to meet the requirement of common facility such as general lighting.
- (f) Domestic consumers must procure and use only Bureau of Energy Efficiency star labelled appliances/equipment's for improving the energy efficiency. In case of equipment/appliance those are not covered under Star Labelling programme, Bureau of Indian Standards certified or equivalent having highest energy efficiency must only be procured.
- (g) While effecting the new connection, the distribution utility has to check and verify the use of above mentioned items before giving electric connection.
- (h) The distribution utility shall disconnect the electric supply if any of the consumer mentioned above is not complying with the clauses mentioned in clauses (a) to (e) of section 3 of this notification and the connection should be established only after the compliance of the above clauses.

#### 4. Public Buildings

- (a) All new procurement of appliances/equipment must be Bureau of Energy Efficiency star labelled with 4 or 5 star.
- (b) In the case of type/category of appliances/equipment's those are not yet covered under Star Labelling, by Bureau of Energy Efficiency, only Bureau of Indian Standards appliances/equipment having maximum energy efficiency must be considered in procurement programs.
- (c) Option for super-efficient equipment must be considered according to the time to time notification made by Bureau of Energy Efficiency.
- (d) Procurement and use of incandescent lamps and inefficient magnetic wound chokes/ballasts for discharge lamps are banned.
- (e) All public building other than High Tension/Extra High Tension must conduct detailed study to explore the techno economics of implementing Renewable energy including waste-to-energy and zero discharge potential. All new procurement must be Energy Efficient T5 Fluorescent Lamp or Bureau of Energy Efficiency Energy Efficient Star Labelled T8 Fluorescent Lamp or better Fluorescent Tubes with Electronic Chokes and/or Compact Fluorescent Lamps or

Light Emitting Diode lamps, it must be ensured that these lamp and fittings must have power factor and Total Harmonic Distortion (THD) as per the applicable Bureau of Indian Standards/International Electrotechnical Commission standards.

- (f) While effecting approval for new buildings, Public Work Department Electrical wing has to check and verify the use of the above mentioned items.

## 5. Commercial Buildings

- (a) Design and construction of all new buildings having a connected load of 100 Kilowatt (kW) and greater or contract demand of 120 Kilo-Volt Ampere (kVA) and greater or having conditioned area of 500 square meter and greater and is intended to be used for commercial purposes must comply with Kerala State Energy Conservation Building Code after its notification: This requirement is applicable to all buildings/building complexes such as offices, hotels, shopping complexes, private hospitals, godowns and other buildings that are not primarily used for Manufacturing process.
- (b) The building falling under the purview of Kerala State Energy Conservation Building Code should conduct energy audit by Bureau of Energy Efficiency accredited energy auditor in such interval as notified by Bureau of Energy Efficiency or Energy Management Centre from time to time as per Section 15(c) of the Act.
- (c) The energy audit details must be reported to the Energy Management Centre in such form and manner and intervals as notified by the Energy Management Centre from time to time.
- (d) Based on the energy audit report, Energy Management Centre has to issue a report to the Chief Electrical Inspector (CEI) and the same can be verified by the CEI during the periodical inspection and compliance may be reported back to Energy Management Centre.
- (e) Commercial Building not coming under Kerala State Energy Conservation Building Code and High Tension/Extra High Tension Tariff Category of Distribution Licensee.
  - (i) Must not use incandescent lamps and wound chokes.
  - (ii) Use of Sodium Vapour lamps, Mercury Vapour lamps and other energy intensive lighting products should be avoided.

- (iii) Only Bureau of Energy Efficiency star labelled products and equipment must be procured; and in case of any appliances/equipment not covered under Star Labelled appliances, only energy efficient, BIS marked or other acceptable standard compliant must only be procured.
- (iv) Optimise the Light Power Density (LPD) as per guidelines of Kerala State Energy Conservation Building Code.
- (v) All Commercial installation having connected load above 10 kW and which has the facility to install Solar PV system must use a minimum of 10% of its total electrical energy requirement from Solar Photo Voltaic or Solar-Wind Hybrid system.
- (vi) All hot water requirements must be met from solar water heaters.

#### **6. Designated Consumers**

- (a) The Designated Consumers must file Energy Consumption Data/ Generation details of every financial year as per Form-1 of Perform Achieve and Trade Rule to Energy Management Centre and comply with Perform Achieve and Trade norms. Violation of this attracts penalty under Section 26 of the Act.

#### **7. Electricity Consumers under High Tension/Extra High Tension category of Distribution Licensees other than Designated Consumers**

- (a) Electricity Consumers under High Tension/Extra High Tension category of distribution licensee in the State must comply with Kerala Government Order G.O. (Rt.) No. 2/2011/PD/dated 1-1-2011 regarding Mandatory Audit.
- (b) For overall practises of energy efficiency and for efficient use of energy and its conservation in the premises and facility of consumers coming under the said G.O. must:
  - (i) Have an Energy Policy;
  - (ii) Appoint a Registered Energy Manager (REM) as per qualification and guidelines given in Annexure 1 of this notification;
  - (iii) Registered Energy Manager must be responsible for:



- Formation of Energy Circle in the facility;
  - Documentation of Energy Consumption;
  - Monitoring of energy consumption;
  - Filing of Energy Data;
  - Conducting of or getting done the Mandatory Energy Audit;
- (iv) Registered Energy Manager (REM) should attend the periodic training Programme organised by Energy Management Centre.
- (c) The High Tension/Extra High Tension installations must conduct energy audit strictly through energy audit firms registered with Energy Management Centre and as per the guidelines for conducting Energy Audit by Energy Management Centre.
- (d) The Registered Energy Manager (REM) of the facility and the Energy Auditor registered with Energy Management Centre must jointly present the audit report before the Technical Committee constituted by Energy Management Centre as and when informed by Energy Management Centre.
- (e) Consumers coming under the said G.O. must file details of energy efficiency improvement measures implemented, investment made and savings in energy and demand achieved and progress made in the implementation of other recommendations as per Form—EAI of this notification.
- (f) Employees, including fresh candidates recruited who are related to energy generation, management, accounting, utilisation, engaged either in technical functions or in non-technical functions must attend the periodic training program.
- (g) While scrutinising the new schemes Chief Electrical Inspector has to check and verify the use of energy efficient equipments in the prescribed areas.
- (h) Based on the energy audit report, Energy Management Centre has to issue a report to the Chief Electrical Inspector (CEI) and the same can be verified by the Chief Electrical Inspector during the periodical inspection and compliance may be reported back to Energy Management Centre.

**8. Agriculture Sector**

- (a) All new connections to the agricultural pump sets must mandatory use Bureau of Energy Efficiency (BEE) Star labelled pump sets (with minimum 4 star rating) and Bureau of Indian Standards rated accessories. Distribution Licensee, Department of Electrical Inspectorate and Agriculture Department must make necessary amendments to this effect in their relevant regulations and guidelines pertaining to granting permission for new agricultural connections and awarding financial grants and tariff concessions.
- (b) The pump sets which are in use and not having four or five star rating must be replaced with new four or five Bureau of Energy Efficiency star labelled pump sets in a phased manner within three years as notified by Government of Kerala Order vide G.O. (P) No. 10/2014/PD dated 11-4-2014.
- (c) In case the type and rating of pumps required are not covered under Star Labelling programme, highest energy efficiency, complying with relevant Bureau of Indian Standard must only be procured.

**9. Educational Institutions**

- (a) All educational institutions in the State must participate in energy efficiency and conservation programmes designed for educational institutions as per the guidelines notified time to time by of Government of Kerala.

**10. Transport**

- (a) Drivers, mechanics, supervisors and managers of such entities who own and/or operate vehicles for carrying passenger and/or goods transport must undergo capacity building training and awareness programs as notified/informed by Government.
- (b) Energy efficiency must be a factor that should be included in Procurement Programs and Operation and Maintenance practices of vehicles by Government departments, all government owned or aided organisations and any organisations coming under the auditing purview of Government.

## 11. Public Lighting

### (a) Hoardings/Bill Board Lights

- (i) All Hoardings/Bill Board Lights must be only with Light Emitting Diode or superior energy efficient lamp to optimize the Light Power Density, and must be powered by Solar Photovoltaic Module to minimise or avoid grid power drawal. Drawing Grid power during peak hours are banned for billboard/hoarding.
- (ii) The advertisement signage/billboard should have automatic provision for shedding from grid supply, during peak hours.

### (b) Street lighting system

- (i) The illumination level for different types of roads, as recommended by IS 1944 or its latest versions must be followed.
- (ii) The installation of the New Street lights should be entirely design based with High efficacy Fixtures and power factor and Total Harmonic Distortion should comply with applicable Bureau of Indian Standards/International Electrotechnical Commission standards.
- (iii) Incandescent bulbs (General Lightning System) should not be used. Wherever these are installed the Same have to be replaced with Light Emitting Diode Lamps/superior quality energy efficient lamps having power factor and Total Harmonic Distortion complying with Bureau of Indian Standards/International Electrotechnical Commission Standards
- (iv) The use of Sodium vapour and metal Halide Light are prohibited. The replacement of Sodium vapour/Metal Halide lamps must be done with Energy Efficient Light Emitting Diode lamp/Superior quality energy efficient lamps in a phased manner with in a period of one year from date of this notification.

### (c) High Mast lighting system

- (i) Newly Installed High Mast light and low mast should only use Light Emitting Diode lamps/superior energy efficient lamps and fixtures.
- (ii) Installation and use of high power intensive High mast light with Sodium Vapour lamps or Metal halide lamps or Mercury vapour lamps in High Mast must be avoided.
- (iii) While replacing the existing high intensity, lights, energy efficient Light Emitting Diode or superior lamps should be used.

- (iv) The High mast lights should be used only where highways, bye-passes or major roads cross; other locations low masts with lower power i.e. total power of the low mast should be less than 1000 W, must be resorted to.
  - (v) High mast should be installed with dimmers and group control for reducing the power consumption during lean traffic period.
  - (vi) Light pollution mitigation and aesthetics must be integral part of the design and installation.
- (d) Lighting Controls and Control Gears
- (i) The Chokes of the Lighting systems for all the new installation must be electronic type.
  - (ii) During the less traffic conditions/period the illumination must be reduced by lowering the voltage or alternate switching-off, as applicable and suitable.
  - (iii) Electricity consumption of all street light system must be metered.
- (e) Use of Solar Photo Voltaic (SPV) modules.
- (i) The use of Solar Lights must be prioritised for Hilly Terrains, Historical Places, Tourism areas, Parks, Recreational Facilities, Monument Lighting etc. especially in remote areas and wherever it is expensive to lay main grid electrical supply line for lighting purpose.
  - (ii) The Solar Photo Voltaic (SPV) module should be used only with Energy efficient lighting Fixtures such as T-5, 28 W Fluorescent Tube Light, Light Emitting Diode Lights, Compact Fluorescent lights, Induction Lamps or any similar state-of-art energy efficient lamp/fixture/control gear with proper controls as well as with energy consumption metering and monitoring.

## 12. Distribution Transformers

- (a) For all new installations of distribution transformers only Three Star and above star labelled Transformers must be used. In case of size/rating and type of Transformers required are not covered under Star Labelling programmes highest efficiency in compliance with relevant Bureau of Indian Standards must be mandatory.
- (b) Periodical dielectric oil test as per Bureau of Indian Standards specification shall be conducted and records maintained for verification.

- (c) In every 15 years or as and when rewinding and repair is conducted, efficiency test must be conducted (in situ) and records maintained including identification and implementation of efficiency improvement if any.
- (d) As part of regular maintenance programme, neutral current and phase balance must be measured and documented and appropriate action must be taken including rationalisation of secondary side distribution board.
- (e) Energy loss evaluation from secondary side distribution board of transformer to end user must be carried out once in three years and as and when addition, modification of lines and/or loads takes place and the same must be documented periodically. Detail plan, layout and distribution diagram, preferably computerised mapping, may be prepared and updated.
- (f) The above details can be verified in-situ during the periodic inspection by the Chief Electrical Inspector.

### 13. Diesel Generators (DG)

- (a) All new procurement must be mandatory star labelled Diesel Generators as and when notified by Bureau of Energy Efficiency.
- (b) In case the type and rating of required Diesel Generator Set is not yet covered by Star label programme, only Bureau of Indian Standards Marked Highly efficient Diesel Generator must be mandatory.
- (c) The Diesel Generator commissioning and periodical maintenance must include test result for efficiency, specific power generation (kWh per Litre), average Power Factor (PF), and actual average loading. This is applicable to Diesel Generator set coming under the inspection of Electrical Inspectorate.
- (d) The above details can be verified in-situ during the annual inspection by the Chief Electrical Inspector and copy of the defect report should be forwarded to Energy Management Centre.

### 14. Boilers

- (a) All Boilers and steam distribution coming under Indian Boiler Regulations as well as non Indian Boiler Regulations boiler must be audited annually to establish boiler efficiency, steam distribution and utilisation efficiency and records maintained with action taken report for energy efficiency improvement at the concerned facility.

- (b) The audit report must be verified in-situ during annual inspection in the case of the boilers are coming within the purview of Department of Factories and Boilers, Kerala and copy of the defect report should be forwarded to Energy Management Centre.
- (c) Measures to enhance Energy efficiency including that of steam distribution and utilisation system must be identified and implemented according to the techno economics.

The offices under the Power Department, Local Self Government Department, Factories and Boilers Department, Agriculture Department, Industries Department, Housing Department, Public Works Department and Water Resources Department shall make necessary amendments to this effect in their relevant rules, regulations and guidelines 1-6-2015.

#### 15. Exemptions

As per Section 61 of the Energy Conservation Act, 2001, the provisions of these directives must not apply to the Ministry or Department of the Central Government dealing with Defence, Atomic Energy or such other similar Ministries or Departments undertakings or Boards or institutions under the control of such Ministries or Departments as may be notified by the Central Government.

By order of the Governor,

M. SIVASANKAR,  
*Secretary to Government.*

## ANNEXURE I

**REGISTERED ENERGY MANAGER (REM)**

The High Level Apex Committee for looking after the Kerala State Energy Conservation Programme, in its first meeting held on 14th June 2010 advised that the Energy Managers in case of HT and EHT consumers not coming under the purview of Designated consumers need not be a Certified Energy Manager but only have to register with the State Designated Agency—Energy Management Centre (EMC), in view of the reported shortage of such expertise.

**Registration of Energy Manager**

- Qualified personnel may apply to EMC in Form-1 through proper channel enclosing all relevant documents for registration.
- For the purpose of registration of energy managers, EMC shall issue a certificate in Form-2 to the person who has registered with us, with copy to the organisation.
- On being registered REM shall be issued identity card in Form-3.
- EMC shall maintain a register of REMs in Form-4 and include the name of person to whom certificates have been issued under the said register.

**Qualifications**

1. A person shall be qualified to become a registered energy manager, if he—
  - (a) has registered at EMC
  - (b) has been issued a certificate by EMC to that effect
2. No candidate shall be eligible for registration unless he is—
  - (a) a graduate Engineer or equivalent with three years of work experience involving use of energy in operation, maintenance, planning, etc.; or
  - (b) a post-graduate Engineer or equivalent with two years of work experience involving use of energy in operation, maintenance, planning, etc.; or
  - (c) a graduate Engineer with post-graduate degree in Management or equivalent with two years of work experience involving use of energy in operation, maintenance, planning, etc.; or

- (d) a diploma Engineer or equivalent with six years of work experience involving use of energy in operation, maintenance, planning, etc.; or
- (c) a post-graduate in Physics or Electronics or Chemistry (with Physics and Mathematics at graduation level) with three years of work experience involving use of energy in operation, maintenance, planning, etc.

(For definitions on qualifications, refer Annexure A)

**Validity of Registration:**—The registration shall be valid for a period of two years and renewable after two years on an application made to the EMC in Form-5. Provided that no such renewal shall be made unless the REM has attended a short term refresher training course conducted by the EMC, as the case may be, and has produced a certificate of participation issued in that behalf.

**Cancellation of Registration:**—EMC may cancel the certification of an energy manager on a complaint made against him for—

- (a) any commission or omission amounting to professional misconduct
- (b) any misrepresentation of facts, data or reports on energy consumption
- (c) any act amounting to fraud
- (d) failure to attend the refresher course,

provided that no such cancellation shall be done by the EMC without giving an opportunity of being heard to such energy manager. On cancellation of registration of energy manager, his name shall be removed from the register and thereafter, the registered energy manager shall not be eligible for designation or appointment as energy manager.

**Issue of duplicate certificate or identity card:**

1. where the certificate or identity card issued respectively has been lost by the energy manager, EMC may, on an application made by him in this behalf, duly supported by a copy of first information report lodged with the concerned police station, issue a duplicate certificate or identity card, as the case may be, on a payment of a fee of rupees one hundred by demand draft drawn in favour of Energy Management Centre, payable at Thiruvananthapuram.

2. where any certificate or identity card issued by EMC is damaged, EMC may on a application made in this behalf and on surrender of damaged certificate identity card, issue duplicate certificate or identity card on payment of a fee of rupees one hundred by demand draft drawn in favour of Energy Management Centre, payable at Thiruvananthapuram.



## APPLICATION FOR REGISTRATION FOR ENERGY MANAGER

(Through proper channel)

Name of the applicant	
Sex (Male/Female)	
Present Address	
Permanent Address	
Mobile & Land line No.	
E-mail	
Date of Birth	
Designation	
Total work experience	
Name of the Present Employer	
Address of Present Employer	
Telephone & Fax of Present Employer	
Website & Email of Present Employer	
Years of experience in present company	

**Requisite Educational Qualifications**

<i>Sl. No.</i>	<i>Name of degree/ Diploma</i>	<i>Subjects/ Branch</i>	<i>Year of passing</i>	<i>Board/ University</i>

**Requisite experience for fulfilling the eligibility Criteria**

<i>Sl. No.</i>	<i>Name of employer/ organisation</i>	<i>Designation</i>	<i>From (date)</i>	<i>To (date)</i>	<i>Nature of work (max. 50 characters)</i>

**Declaration by the candidate**

I hereby declare that all the information given in the application form and enclosures are true to the best of my knowledge. I agree to the condition that if any information or any statement is found to be incorrect, my registration may be cancelled.

Forwarded by (Name) :

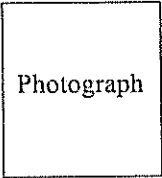
Designation :

Signature :

Date:

CERTIFICATE FOR REGISTERED ENERGY MANAGER

Certificate Registration No. :



This is to certify that Mr./Mrs./Ms ..... is certified as Registered Energy Manager. This certificate shall be valid for two years with effect from the date of award of this certificate and shall be renewable subject to attending the prescribed refresher training course once in every year.

His/her name has been entered in the record of Registered Energy Manager at Sl. No ..... being maintained by the Energy Management Centre.

Given under the seal of the Energy Management Centre, this.....day.

(Signature and Seal)

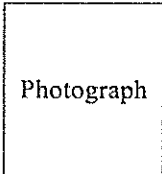
DIRECTOR,  
Energy Management Centre.

<i>Dates of attending the refresher Course</i>	<i>Director's Signature</i>	<i>Dates of attending the refresher Course</i>	<i>Director's Signature</i>

FORMAT FOR IDENTITY CARD

ENERGY MANAGEMENT CENTRE THIRUVANANTHAPURAM

Registered Energy Manager



Registration No. ....

Name .....

Son/Daughter of .....

Address .....

.....

.....

Signature of Registered Energy Manager.

(Backside of Identity Card)

Date of Issue..... Validity up to.....

Issuing Authority.....

Name.....

Designation.....

Office address.....

.....



Signature:

FORM REM-4

## ENERGY MANAGEMENT CENTRE

## Record of Registered Energy Managers

As on.....(DD/MM/20YY)

Photograph
------------

## A. Registration Information

Name of registered energy manager	
Sex (Male/Female)	
Date of Birth	
Nationality	
Registration Number	
Date of entry in the register	
Date of issue of registration	
Date of re-validation of registration	
Revalidation record	1.
	2.
	3.

## B. Communication Links

Postal address with Pincode	
E-mail	
Land line & Mobile No. with STD Code	

**C. Work Experience**

<i>Sl. No.</i>	<i>Name of employer/ organisation</i>	<i>Designation</i>	<i>From (date)</i>	<i>To (date)</i>	<i>Nature of work (max. 50 characters)</i>

**D. Personal Information**

<i>Sl. No.</i>	<i>Name of Degree/ Diploma</i>	<i>Subjects/ Branch</i>	<i>Year of passing</i>	<i>Board/ University</i>
1				
2				
3				

## APPLICATION FOR RENEWAL OF CERTIFICATION

Date.....

From

Mr./Mrs./Ms. ....

Registration No. ....

Postal Address .....

.....

(through proper channel)

To

The Director,  
 Energy Management Centre,  
 Srikrishna Nagar, Sreekrayam P. O.,  
 Thiruvananthapuram-695 017  
 Kerala, India  
 Tel: +91- 471-2594922, 2594924  
 Fax: +91- 471-2594923

Dear Sir/Madam,

*Subject:* Renewal of certification as Registered Energy Manager.

This is to inform that I have attended the short-term refresher training course and enclose herewith the certificate of participation issued in this behalf.

I hereby apply for renewal of my application as Registered Energy Manager. The certificate is enclosed for doing the needful.

Yours faithfully,

(Signature).....

Name.....

FORM EA 1

DETAILS OF ENERGY EFFICIENCY IMPROVEMENT MEASURES IMPLEMENTED, INVESTMENT MADE AND SAVINGS IN ENERGY ACHIEVED AND PROGRESS MADE IN THE IMPLEMENTATION OF OTHER RECOMMENDATIONS

A. Implemented:

Sl. No.	Year of Energy Audit	Year of Implementation	Description of energy efficiency improvement measure	Investment (₹)	Annual Savings (if any)		Total Savings (₹)	Remarks
					Electricity	Fuel		
1.								
2.								
3.								



**B. Under Implementation:**

Sl. No.	Year of Energy Audit	Year of Implementation	Description of energy efficiency improvement measure	Investment (₹)	Annual Savings (if any)		Total Savings (₹)	Remarks
					Electricity	Fuel		
4.								
5.								
6.								

Signature

Name of the Energy Manager

Name of the company

Full address

Contract person

E-mail address

Telephone/Fax number

Plant address

Signature

Name and address of the Energy Auditor

Accreditation details (BEE/EMC)

Seal

**Explanatory Note**

(This does not form part of the notification, but is intended to indicate its general purport).

Government of Kerala accords highest priority to energy conservation and energy efficiency and for measures to reduce Green House Gas (GHS) emission for protecting the environment. In the exercise of the powers conferred by Section 18 of the Energy Conservation Act, 2001 (Central Act 52 of 2001) the State Government have decided to issue certain directions regarding regulation of the energy consumption standards for equipments and appliances to improve energy efficiency in all Sectors of the State.

The notification is intended to achieve the above object.

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