

**BEFORE THE HON'BLE**  
**KERALA STATE ELECTRICITY REGULATORY COMMISSION**

**IN THE MATTER OF:**           **'Energy Efficiency Cess' in electricity charges and transfer of "Energy Efficiency Cess" to Kerala State Energy Conservation Fund (KSECF)**

**PETITIONER:**               **Director**  
**Energy Management Centre – Kerala**  
**Sreekrishna Nagar, Sreekaryam P.O.**  
**Thiruvananthapuram 695 017**

The petitioner named above respectfully submits as under:

1. Energy Management Centre – Kerala, (hereinafter Called as EMC) is an autonomous organization under Department of Power, Government of Kerala, established in 1996 for formulating and implementing energy efficiency and energy conservation programmes and projects in the State of Kerala and to advise the Government on matters related to efficient use of energy and its conservation.
2. Government of Kerala, in consultation with Bureau of Energy Efficiency (hereinafter called as BEE), Ministry of Power, Government of India designated Energy Management Centre as the State Designated Agency (hereinafter called as SDA) to coordinate, regulate and enforce provisions of Energy Conservation Act, 2001 (Central Act 52 Of 2001) in the State, and the same was notified vide S R O No.1212/2003.

(Annexure 1)

3. Since its inception EMC has been pursuing several effective programmes and projects in the area of Energy Conservation and some of the major activities that have shown remarkable results are mentioned below:

- ⤴ Investment Grade energy audit in 22 Govt. buildings
- ⤴ Sector specific energy efficiency potential evaluation in Small and Medium Enterprises
- ⤴ Waste Heat recovery project proposals in 20 Industrial units
- ⤴ Capacity building by training of personnel and specialists in the techniques for efficient use of energy and its conservation
- ⤴ Consultancy services in the area of Energy Efficiency
- ⤴ Creation of awareness and dissemination of information
- ⤴ Promotion of energy efficient processes, equipment, devices and systems
- ⤴ Taking steps to encourage preferential treatment for use of energy efficient equipment or appliances
- ⤴ Giving financial assistance to institutions for propagating efficient use of energy and its conservation vide seminars, workshops, exhibitions etc.
- ⤴ Facilitating Energy Audits
- ⤴ Conducting of women volunteer operated “Energy Clinic Programme”
- ⤴ Energy conservation awareness programmes in schools and colleges
- ⤴ Interaction with various stakeholders in promoting energy conservation and management
- ⤴ Working closely with BEE and availing technical and financial assistance from/through BEE.

- ✦ Conducting refresher programmes for the Certified Energy Auditors /Managers of the State
  - ✦ Conducting focused studies, to prepare data base, to comprehend impacts of ongoing programmes/projects as well as to provide inputs in identifying thrust areas for modifications of existing programmes/projects and to initiate appropriate new programmes/projects.
  - ✦ As part of the R&D efforts, EMC took the lead role in establishing the first pre-paid energy metering system at KINFRA Industrial Park, Kakkanad, Kochi. In order to improve energy efficiency in Brick, Tile, Glass and Rice Mills, EMC developed the Temperature Monitoring and Altering Systems ( TMAS) and the project was funded by UNIDO for glass industries and US-AID for rice mills. For switching on and switching off the street lights, EMC developed the almanac fed street light controller system now successfully working at Cochin Port Trust and Thalassery.
4. As part of implementation of Energy Conservation Act, 2001 (Central Act 52 Of 2001), the following initiatives are expected to yield far reaching results in States Energy Efficiency and Conservation, in turn energy scenario:

**4.1.** EMC in association with National Productivity Council, conducted a study on assessment of energy conservation potential in Kerala. The

identified sectoral potential are;

- ✦ 30-40% - Agricultural
- ✦ 20-30% - commercial
- ✦ 10-20% - Municipalities
- ✦ 10-15% - SME Clusters
- ✦ 20-25% - Domestic Sector (rural area up to 50%)

For realising these energy conservation potential, the study recommended strategies/programmes.

**4.2.** Government of Kerala notified that all HT/EHT and Commercial high Rise building, Electricity Consumers shall carryout Energy Audit once in three years and the copy of the reports shall be submitted to SDA for follow-up of implementation of the Audit Recommendations for energy savings. (Copy of G.O appended as **Annexure 2**)

**4.3.** EMC is pursuing notification of Energy Conservation Building Code with Government of Kerala, which is expected to realize substantial energy saving in the Commercial Building Sector. EMC conducted a Survey and Analysis of Buildings in the State of Kerala falling under the purview of EC Act 2001. The study reported an aggregate growth of commercial buildings, in the various bands of contract demand of 100kVA – 600 kVA and above, is 221% in the last 10 years. In this, commercial buildings with contract demand 100kVA - 200kVA band has shown highest growth rate of 251% and this growth has triggered rapid increase in energy consumption in the commercial building sector . The survey could identify 240 commercial buildings falling under the EC Act.

**4.4.** EMC has initiated the follow-up of mandatory procurement of Star Labeled Appliances by Government offices as well as accelerated

penetration of energy efficient equipment/appliances in the State. EMC conducted a survey in Kerala on household products manufactured and their sales and other energy consumption equipments falling under the Energy Conservation Act – 2001 . The survey conducted for 9 household appliances revealed that 3 household Star Labeled appliances, namely, Frost Free Refrigerators, Air Conditioners and Tubular Fluorescent Lamps, had better market or consumer acceptability. The estimated energy savings compared to the BEE Star Labeled products vis-à-vis non Star Label products, considering energy saving potential as 15%, in the State of Kerala is around 843.2 Million units. The study recommended replacement of inefficient equipments with efficient equipment and promotion of BEE star labeled products with proper financing schemes.

**4.5.** EMC has conducted Investment Grade Energy Audit of 22 Government buildings by utilising ESCO services and implementation of recommendations is being initiated. Estimated energy savings is 5.381 Mu with Rs. 369.5 lakh with an investment of Rs.448.7 lakhs.

**4.6.** For maintaining and scaling-up these ongoing EMC's initiated activities as well as converging the Energy Efficiency and Energy Conservation Opportunities to implementation adequate funding support is very essential.

5. Government of Kerala, in exercise of the powers conferred by Section 57 and Section 16 of the Energy Conservation Act 2001 (Central Act 52 of

2001), constituted the Kerala State Energy Conservation Fund (KSECF) and notified the Rules for the administration of the KSECF vide S R O No.367/2010. (Appended as **Annexure 3**)

6. As per the Kerala State Energy Conservation Fund Rules, Fund shall be administered by the State Designated Agency (SDA) under the supervision of the State Level Steering Committee in accordance with the provision of the said Act.
7. The loans and grants from State and Central Governments and other organizations form part the Fund. Bureau of Energy Efficiency, Ministry of Power, Government of India has provided an amount of Rs. 2 Crore to KSECF.
8. The SDA, under the supervision of the State Level Steering Committee, has powers to develop and process proposal for financial assistance for the fund.
9. Rising concern of climate change and its cause and effect relation with energy conservation/energy efficiency, many countries are looking for 'green energy cess' for a sustainable financing mechanism, mainly for supporting energy efficiency and energy conservation projects and programmes.
10. In India, Union Territory of Puducherry, Gujarat, Maharashtra are taking steps to introduce 'green energy cess'.
11. In Kerala, the ever rising demand-supply gap of energy and peak load demand (both evening peak load and the recently experienced morning peak load ) as well as increasing Thermal: Hydel/Renewable Energy Mix and increasing socio-economic activity and life style/standard of living induced energy intensity make the energy efficiency and energy conservation a priority area, which encompass wide array of matters like

technology, equipments, appliances, skill etc.

12. EMC has identified following State specific schemes to finance Energy Efficiency and Energy Conservation projects, based on various stakeholder consultative meeting.

- ⤴ Energy audit subsidy scheme
- ⤴ Interest buy-down scheme for Industries
- ⤴ Energy efficient appliance financing scheme for domestic customers
- ⤴ Energy efficiency grant scheme for public sector projects
- ⤴ Performance contracting scheme for public sector projects
- ⤴ Partial credit guarantee scheme
- ⤴ Publicity campaigns for demand side management

A brief abstract of the report describing the financing schemes including the rationale for their use and the implementation is appended as **Annexure 4.**

13. In order to cater to the above essential, critical and result oriented programmes and projects, Energy Management Centre would like to seek funding support through an "Energy Efficiency Cess" .

**14. 'Energy Efficiency Cess ' of One Paise Per Unit of Electricity Sold in the State may be levied, which may be credited to the Kerala State Energy Conservation Fund (KSECF)**

15. The Governing Body meeting of EMC held on 27.03.12, chaired by Hon'ble Minister of Power, Shri. Aryadan Muhammed has approved the

proposal submitted by Director, EMC to file a petition before the Hon'ble KSERC regarding levying 1 paise per unit from all consumers of distribution Licencees to meet the Energy Conservation Fund activities as envisaged in the EC Act 2001. (Minutes of the meeting appended as annexure 5).

### **Prayer**

Hon'ble Commission may kindly be pleased to consider the contentions and grounds raised in this petition and consider directing the Electricity Licensees of the State to impose 'Energy Efficiency Cess' and approve to transfer the same to Kerala State Energy Conservation Fund.

DIRECTOR

ENERGY MANAGEMENT CENTRE

o n 17<sup>th</sup> day of May 2012

#### List of Annexures:

Annexure 1: Copy of notification – S R O No.1212/2003 – 1 Page

Annexure 2: Copy of G.O. regarding mandatory Energy Audit, 1 Page

Annexure 3: Copy of Kerala State Energy Conservation Fund (KSECF) Rule, 3 Pages

Annexure 4: A brief abstract of the report describing the financing schemes, 23 Pages

Annexure 5: Copy of Minutes of the Governing Body meeting held on 27.03.12