82/est/2018

OFFICE OF THE CHIEF ENGINEER
LOCAL SELF GOVERNMENT DEPARTMENT
3RD FLOOR, REVENUE COMPLEX
PUBLIC OFFICE COMPOUND,
THIRUVANANTHAPURAM –33

Phone : 0471-2324951
0471-2325071
TeleFAX:0471-2324951
email:celsgd@gmail.com
website: www.celsgd.com

**No.DB1/6971/2012/CE/LSGD** **Dated: 07/03/2018**

## *CIRCULAR*

Sub:- LSGD – Engineering Wing - Implementation of Kerala Energy Conservation Building Code - Reg.

Ref:- 1. Leter No. EMC/EED/ECBC/LSGD – Demo/2018/01 dated 30/01/18 from the Director, Energy Management Centre
2. GO (P) No. 3/2017/PD, dated 11/04/2017

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Government vide order cited 2nd had made applicable the Kerala State Energy Conservation Building Code (KSECBC) to new building, *which have a connected load of 100 KW or greater, or a contract demand of 120 KVA or greater, or having conditioned area of 500 $m^2$ or greater and is intended to be used for commercial purposes such as commercial complexes, Shopping Malls, Hotel, Hospitals, Motion Picture Theatres, Office Buildings, Banks, Educational buildings, Cyber Park etc and others that are not primarily used for manufacturing process, except building for Residential purpose*. Hence Energy Conservation Building Code (ECBC) is to be implemented in Government building also. Any new LSGI building falling under the purview of the above Code should be complied with ECBC norms. If any assistance is required in this regard, the service of ECBC Cell, Energy Management Centre, Trivandrum which is the State Designated Agency (SDA) to implement Energy Conservation Act 2001, in Kerala can be obtained. The Contact details of ECBC Cell is as follows.

ECBC Cell,
Energy Management Centre,
Sreekrishna Nagar, Sreekariyam (PO),
Thiruvananthapuram – 695017
Te:- 0471-2594922, 2594924

Encl:- Brief write up on ECBC Provided by EMC

copy to:All Engineering head of
Local Self Government Institutions

Yours Faithfully,

**Chief Engineer**

Np/-

# Brief Write up on ECBC

## What is ECBC ?

Energy Conservation Building CODE (ECBC) defines norms and standards for the energy performance of building and their components based on the climate zone in which they are located. ECBC provides minimum requirements for energy – efficient design and construction of buildings. The Energy Conservation Act 2001 (Central Act 52 of 2001) empowers the Central Government under section 14 (p) read with Section 56(2)(1) to prescribe Energy Conservation Building Code(ECBC).

## Applicable Building Systems

The provisions of the Code shall apply to:
(a) Building envelopes,
(b) heating, ventilating, and air conditioning,
(c) Service hot water heating,
(d) Interior and exterior lighting, and
(e) Electrical power and motors.

**Notification of ECBC in Kerala.**

As per Section 15(a) of the Energy Conservation Act, 2001 (Section 15(a): the state Government may, by notification, in consultation with Bureau of Energy Efficiency (BEE) can amend the ECBC to suit the regional and local climatic conditions and may, by rules made by it, specify and notify energy conservation building code with respect to use of energy in buildings.

- **Kerala Energy Conservation (Building Code) Rules 2017 Notified vide (G.O. (P) No. 3/2017/PD dated 11th April 2017 vide Kerala Gazette Vol VI , No 936 dated 8th May 2017**

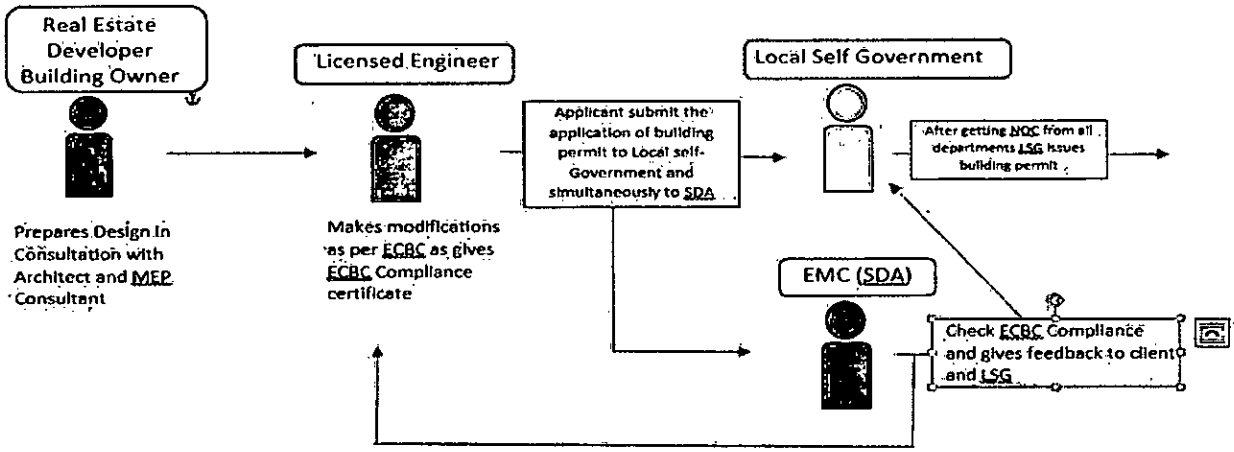
## Who are all coming under the code?

The Code is applicable to new buildings with

- a connected load greater than 100 kW or
- a contract demand greater than 120 kVA or
- conditioned area of more than 500 $m^2$

and is intended to be used for commercial purposes such as Commercial Complexes, Shopping malls, Hotels, Hospitals, Motion Picture theatres, Office buildings, Banks, Educational buildings, Cyber parks etc. and others that are not primarily used for manufacturing process, except building for residential purpose

## Approval Process and Steps




## Benefits of ECBC Compliance building

Some of the benefits of a green design to a building owner, user, and the society as a whole are as follows:

1. Reduced energy consumption without sacrificing the comfort levels (lower operational costs)
2. Reduced system sizes (HVAC, transformers, cabling, etc.) for optimal performance at local conditions.
3. Reduced investment (lifecycle cost)
4. Reduced air and water pollution (with direct health benefits)
5. Reduced pollution loads
6. Enhanced image and marketability

## Does an ECBC compliant building cost more than a conventional building?

Yes, you can easily design a ECBC Compliant building, by integrating energy efficient features into a building's design from the pre-design stage itself, and by ensuring that the architects, engineers and contractors follow the code addressing local needs, designing such a building is easy and fun, and ***may cost lesser than a conventional building***.