



ADOPTION - COMPLIANCE - ENFORCEMENT  
**ACE:E<sup>2</sup>**  
FOR ENERGY EFFICIENCY

ADOPTION, COMPLIANCE, ENFORCEMENT  
for ENERGY EFFICIENCY in BUILDINGS

# Newsletter

Date Oct 2018 | Issue 1 | Position Paper 1 - EU Energy Performance of Buildings Directive: the continuing journey

## ECBC India

ECBC 2017 (Energy Conservation Building Code) was launched by Hon'ble Minister (IC) for Coal, Mines, NRE and Power on 19th June, 2017 at Delhi and is applicable for large commercial buildings with connected load of 100 kW and above or 120 kVA and above. ECBC focuses on building envelope, mechanical systems and equipment including heating, ventilating, and air conditioning (HVAC) system, interior and exterior lighting systems, electrical system and renewable energy, and also takes into account the five climates zones (Hot Dry, Warm Humid, Temperate, Composite and Cold) present in India.

The ECBC was developed by an Expert Committee, set up by India's Bureau of Energy Efficiency, with support and guidance from United

## Inside This Issue

- Position Paper on EU Energy Performance of Buildings Directive
- 1<sup>st</sup> and 2<sup>nd</sup> Regional workshops in India
- Upcoming Regional workshop in Bihar, on Oct. 30, 2018



**EU-INDIA**  
**CLEAN ENERGY & CLIMATE PARTNERSHIP**

## Position Paper 1 - EU Energy Performance of Buildings Directive: the continuing journey

The EU Energy Performance of Buildings Directive, or EPBD is now in its third phase of evolution. It first came into force in 2003 and was implemented across Europe between 2006 and 2008. It mandated national authorities to set minimum energy performance standards in their codes for new buildings and renovations and encouraged the deployment of renewable energy. It introduced the concept of an energy performance certificate (EPC) or label, required when a building is constructed, sold or rented out. It also required many public buildings to display energy performance certificates in an accessible location. And it introduced regular inspections of heating and air conditioning systems.

The Directive was 'recast' in 2010, with various amendments which were implemented since 2011. This strengthened a number of the detailed requirements of the EPBD, aimed at improving the effectiveness of its implementation, including mandatory use of EPCs in property advertisements, a 'cost optimal' methodology for revising energy codes, a requirement to establish roadmaps to 'nearly zero energy buildings' (NZEB), and stronger enforcement systems. This was followed by a requirement within the associated EU Energy Efficiency Directive (EED) to establish national strategies for mobilising investment in EE renovation. As part of the energy and climate policy focus on 2030 targets, the EPBD is now being reviewed again, with a three-way process of negotiation involving the European Commission, European Parliament and Council of Ministers in order to finalise the text of 'EPBD 3'.

This paper outlines the rather complex journey of the EPBD and its evolution to date as a key policy instrument for driving market change in the construction sector and delivering on EU EE policy targets. It looks at the key aspects and implementation experience to date across the EU, which has been diverse, but there are many good practice case examples. And it highlights the EPBD role in paving the path to a future built environment that combines high energy efficiency with strong renewable energy deployment. In particular, its implementation has resulted in step changes in the ambition level of national building codes in Europe and

## Indicative elements

- Background and origin
- Alignment and linkage with other EU policies
- Key requirements relevant to building energy codes
- Review and strengthening – from phase 1 to phase 3
- Institutional and legal processes
- Market stimulus role of energy performance certification (EPC) or labelling
- Key support roles of collaborative 'Concerted Action' and European Standards
- Implementation experiences – variability, good practice examples, learnings
- Impacts of EPBD – market capacity and behaviour, overall energy savings
- Next phase: driving for nearly zero energy buildings, the renovation challenge, smart buildings, smart financing

is driving real improvements in the energy performance, environmental quality and long-term economic sustainability of the building stock. It is making energy performance an increasingly visible feature in the construction and property market, and its impact on building specification has begun to extend from the newbuild sector into the renovation sector. This position paper does not address all aspects of the



EPBD. Its aim is to cover aspects of the EPBD most relevant to implementation of the ECBC in India. And fuller details on the various aspects of implementation (e.g. training, compliance, certification, role of product and service suppliers, finance, etc.) will be given in the later position papers to follow in this series.

# *Upcoming Eastern Regional Workshop to Implement ECBC in India*

*Bihar,  
October 30, 2018*

## **1st Regional Level Workshop on ECBC for Western Region of India, 18th of May 2018**

The first regional workshop was held in Pune on the 18th of May 2018. The objective was to create a forum for different states/stakeholders to share their experiences in adopting/implementing ECBC in their states.

The overall objectives of the workshop are:

- Notified states to present the status of ECBC implementation in their states;
- Discussion on the status of various policy instruments like integration of ECBC in bye-laws, building approval process and schedule of rates (SOR);
- Efficient operational mechanism to implement ECBC in the state;
- Capacity of various stakeholders and professionals in the states;
- Discussion on various market instruments required for the implementation of ECBC;
- Present Success stories/lessons learnt in various states;
- Discussions on challenges / drivers for ECBC implementation.

*Photos from 1<sup>st</sup> Regional Level Workshop*



**Photos from 2nd Regional Level Workshop**



**2nd Regional Level Workshop on ECBC for Southern Region of India, 28th of August 2018**

The second regional workshop was held in Hyderabad on the 28th of August 2018. The objective was to create a forum for different states/stakeholders to share their experiences in adopting/implementing ECBC in their states.

The overall objectives of the workshop are:

- Notified states to present the status of ECBC implementation in their states;
- Discussion on the status of various policy instruments like integration of ECBC in bye-laws, building approval process and schedule of rates (SOR);
- Efficient operational mechanism to implement ECBC in the state;
- Capacity of various stakeholders and professionals in the states;
- Discussion on various market instruments required for the implementation of ECBC;
- Present Success stories/lessons learnt in various states;
- Discussions on challenges / drivers for ECBC implementation.

*(Cont'd from page 1)* States Agency for International Development (USAID) and significant inputs from various other stakeholders such as practicing architects, consultants, educational institutions and other government organizations. The successful implementation of the code requires development of compliance procedures (compliance forms and development of field-test compliance forms and procedures), in addition to building capacity of architects/designers/builders/contractors and government official in States and Urban and Local Bodies (ULBs). It is also dependent on availability of materials and equipment that meet or exceed performance specifications specified in ECBC.

The ECBC provides design norms for:

- Building envelope, including thermal performance requirements for walls, roofs, and windows;
- Lighting system, including daylighting, and lamps and luminaire performance requirements;
- HVAC system, including energy performance of chillers and air distribution systems;
- Electrical system; and
- Water heating and pumping systems, including requirements for solar hot-water systems.

**Project Partners:**



EXERGIA Energy & Environment Consultants



PricewaterhouseCoopers Private Limited India



Center for Environmental Planning and Technology University (CEPT)

**Main Beneficiary:**



Bureau of Energy Efficiency (BEE), Government of India, Ministry of Energy