



Energy Efficiency Building Programme (EEBP)

SITUATION

The ancient India depicts majority of monuments in terms of preservation and sustenance of environment. During earlier times sustainability and sustainable buildings have been the usual way of life in India. These buildings provided comfort to the occupants. They were passive in approach with no external intervention, which in modern times have become quite necessary. Many ancient monuments like Taj Mahal, Hawa Mahal, Forts and the Kanheri Caves (see picture above) are classic examples of sustainable buildings. Unfortunately, the way of building houses in India has changed dramatically in the recent past only. The actual rapid urbanization is creating an unprecedented demand for the construction of buildings, which already account for more than 30 percent of India's total electricity consumption. In line with expanding development, the country's building sector is expected to increase five-fold from 2015 to 2050.

OBJECTIVE

Energy efficiency is one of the world's largest energy resources, and we are only just beginning to tap its potential. India is at a unique crossroads where two-thirds of the commercial and high-rise residential structures that will exist in 2030 are yet to be built. Thus, implementing energy efficiency in buildings that are being constructed in the next ten years presents a singular opportunity to lock in energy and cost savings for the next several decades. India has a tremendous opportunity to turn its building boom into an energy saving boom, simply by considering energy-efficient features and capturing the value of energy savings in its buildings. Energy efficiency through high technology innovations and use of appropriate modern products, materials and designs will lead to sustainability in buildings and energy conservation. Furthermore, it will lead to a more efficient use of energy and in turn supporting climate change mitigation.



APPROACH

The Federal Republic of Germany and the Government of the Republic of India have, under the Indo-German Technical Cooperation, agreed to jointly promote the “Indo-German Energy Programme” (IGEN) with the aim to foster energy efficiency and energy conservation in consumption in order to use energy more efficiently and in turn improve the protection of the environment.

This program supports the Indian Ministry of Power and its Bureau of Energy Efficiency (BEE) in the development of an Energy Conservation Building Code for Multi-Storey Residential Buildings (ECBC-R) and thereafter supporting the implementation in selected states as well as municipalities through a mix of Bottom-Up and Top-Down approaches. During the assignment, capabilities have to be imparted to the stakeholders so that the code shall become implementable with ease.

Overall, the development of the ECBC-R and its subsequent application through a labeling program will lead to a win-win situation for developers and consumers in terms of reduced life cycle costs of buildings, where energy efficiency triggers the savings for both the parties. Eventually, labels will also be utilized as the base for further incentive programs.

EXPECTED ACHIEVEMENTS

- i. A national energy efficiency code and standards for multi-storey residential buildings will be published by Bureau of Energy Efficiency.
- ii. Two Federal states will be initiating a process for the mandatory introduction (Notification) of the National Energy Efficiency Code for multi-storey residential buildings.
- iii. Two municipalities will be adopting National Energy Efficiency Code for multi-storey residential buildings in their Bye-Laws.
- iv. Design of at least two different types of appropriate incentive mechanisms has been provided to Central Government and selected State Governments or Local Bodies for their selection
- v. A national energy efficiency label for multi-storey residential buildings is to be submitted to Bureau of Energy Efficiency
- vi. Adoption of EE labels in 2 green building certification programs of the country based on the proposed benefits and harmony of the new EE label mechanism

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