Government Mechanisms to Stimulate Eco-Design Implementation in India

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Bureau of Energy Efficiency

About Bureau of Energy Efficiency, India

- The Bureau of Energy Efficiency (BEE) is a statutory body of Government of India, under the Ministry of Power, created in March 2002.
- Energy Conservation Act, 2001 led to its creation to reduce energy intensity of the Indian economy.
- It facilitates and enforces efficient use of energy and its conservation in all sectors.

Mandate of BEE

- Regulatory framework for energy conservation
- Develop policy and programmes
- Establishment of State Designated Agencies
- Creation of Professionals and Awareness

BEE Activities

Strengthening Institutional Capacity of Partners

- Strengthening of State Designated Agencies (SDAs)
- International Cooperation

Awareness Programs

- General Awareness
- Energy Conservation Awards
- Painting Competition

Demand Side Management

- Agriculture DSM
- Municipal DSM
- Energy Efficiency in SMEs
- Capacity Building of DISCOMs

National Mission for Enhanced Energy Efficiency (NMEEE)

- Perform, Achieve and Trade (PAT)
- Market Transformation for Energy Efficiency (MTEE)
- Framework for Energy Efficiency Economic Development (FEEED)
- Energy Efficiency Financing Platform (EEFP)

Transport Sector

- Fuel Efficiency Norms
- Plug-in Electric Vehicle (PEV)

Buildings EE

- ECBC Commercial
- ECBC Residential
- Star Labelling of Buildings

Equipment & Appliances

- Standards & Labelling
- Super Energy Efficient Programme (SEEP)

Key Highlights of EE activities

Glimpse of Energy Savings in FY 2018-19 through EE activities

Savings	Electrical	Thermal	Total
Energy	136.37 BU	12 Million Toe	**23.73 Million Toe**
Monetary (Rs)	67,039 Cr	22,083 Cr	**89,122 Cr**
CO_2 Emissions Reduction	111.83 Mt	39.81 Mt	**151.74 Mt**

- **Avoided capacity generation of 43.24 GW**
- **Total energy savings is 2.69% of total primary energy supply of the country**

Energy Consumption by Buildings

(2017)

200 Million toe

390 GWh

Indian Real Estate Scenario

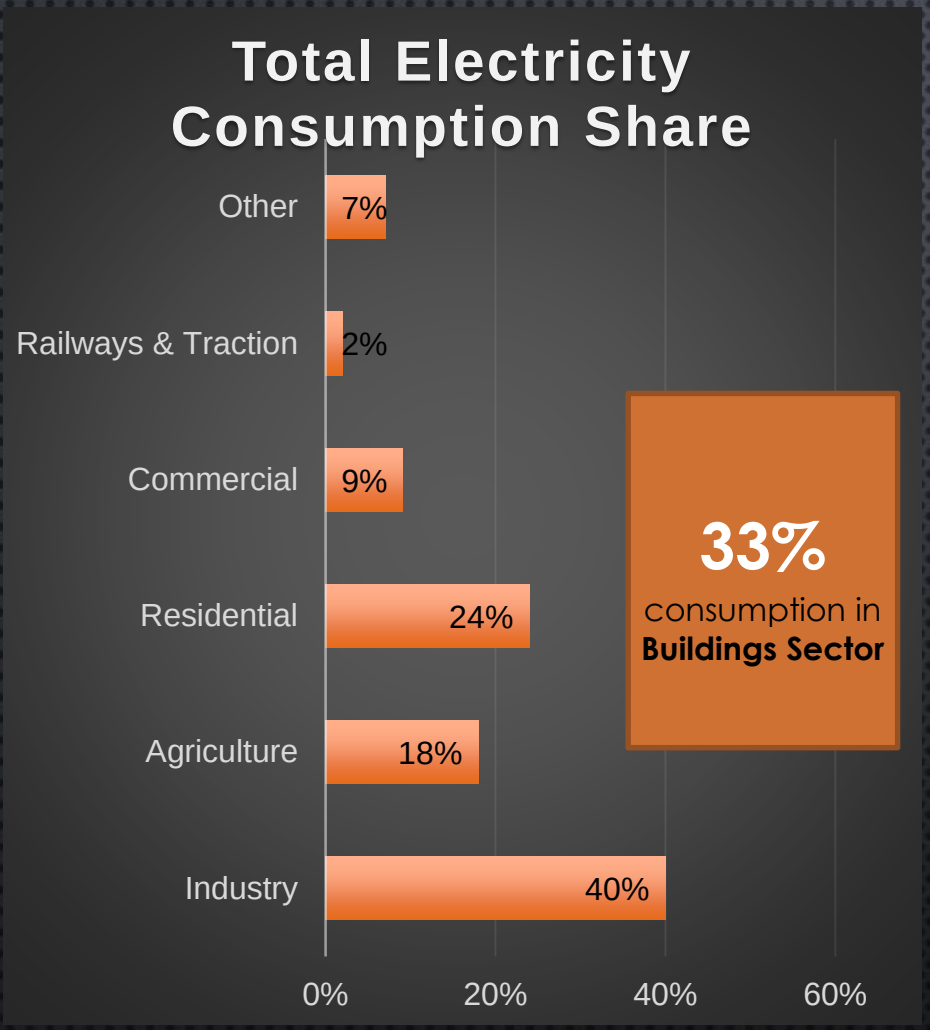
24% of India's annual CO2 emissions

30% of solid waste and 20% of water effluents

Indian Real Estate Scenario

India's real estate sector is expected to contribute 13% to the country's GDP by 2025

Building Sector Profile

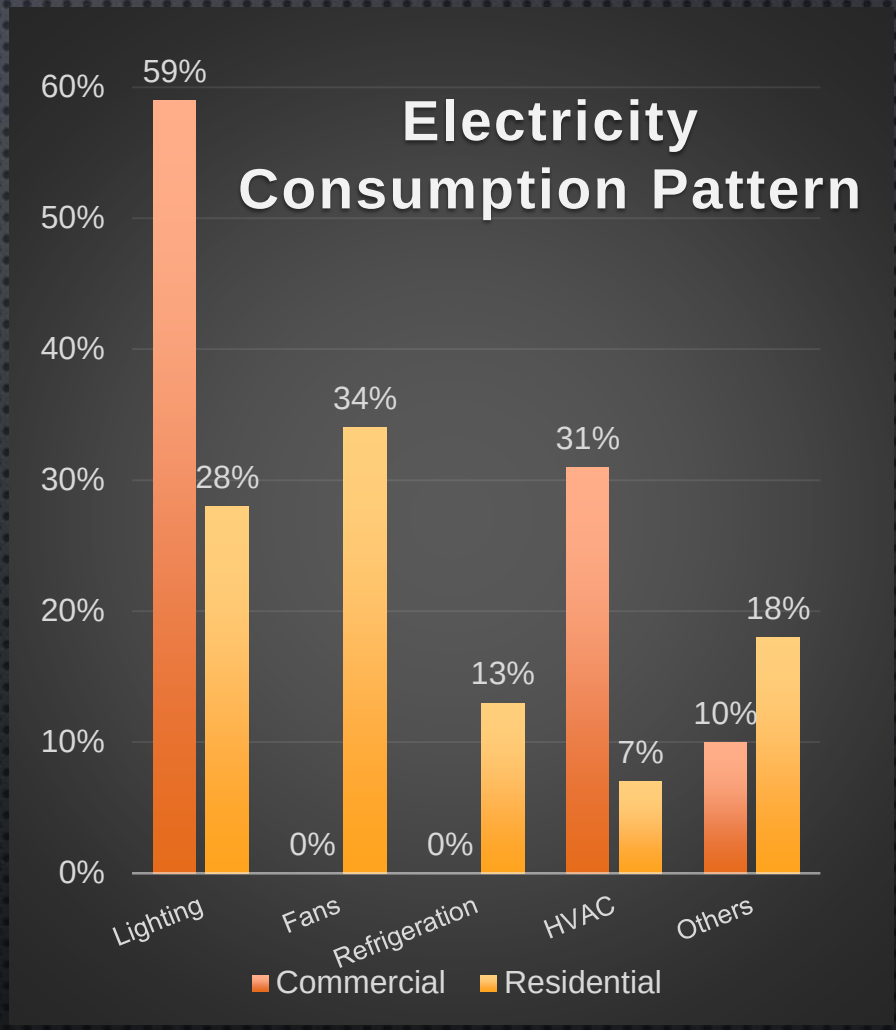


33% consumption in **Buildings Sector**

1 Billion m^2 **Commercial Buildings** will be added by **2030**

3 Billion m^2 **Residential Buildings** will be added by **2030**

Building Sector will surpass Industry by 2030



Energy Efficiency in Building Sector

01 Energy Conservation Building Code (ECBC) for Commercial Buildings 2007

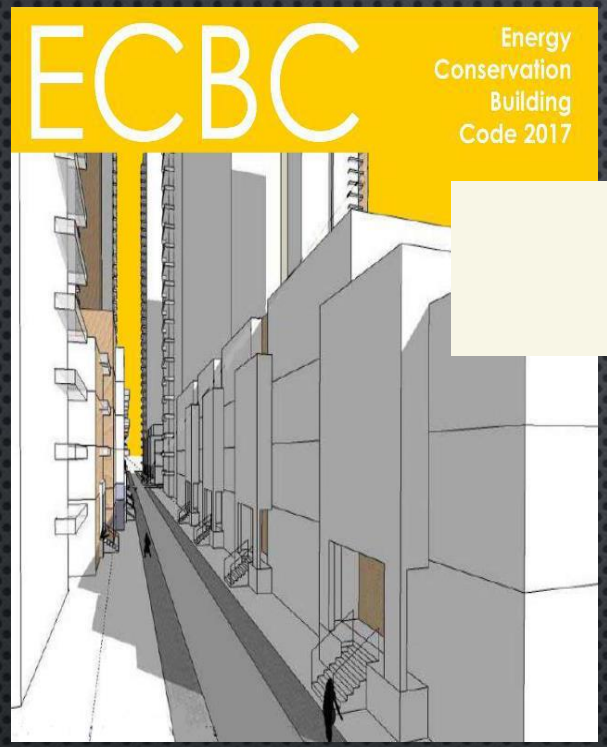
02 Star Rating of Commercial Buildings >250

03 Support for Demonstration Projects

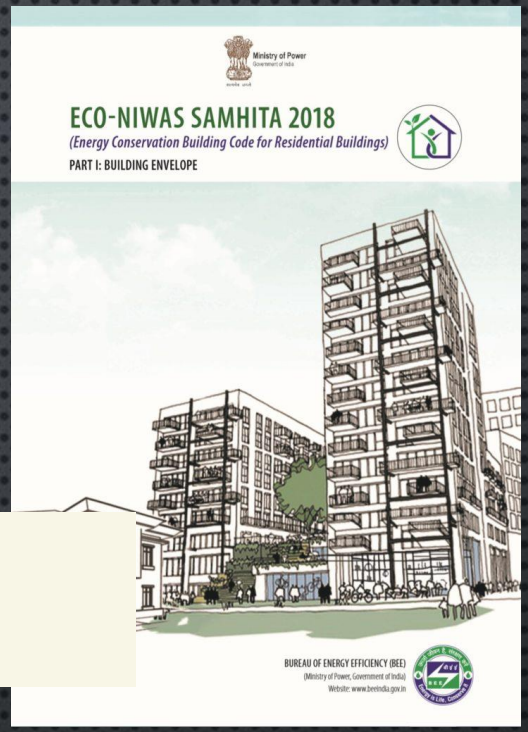
04 Eco Niwas Samhita (ENS) for Residential Buildings 2018

05 Buildings Material Directory

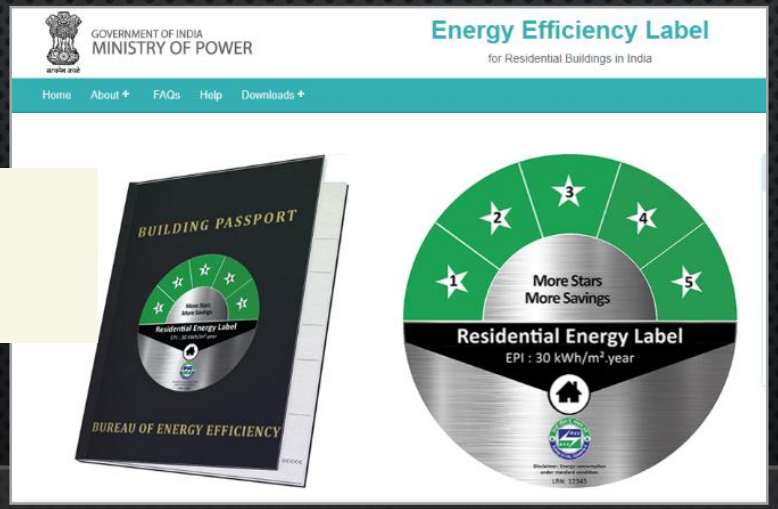
06 >2600 Replicable Building Design and Compliance Tool



Energy Conservation Building Code

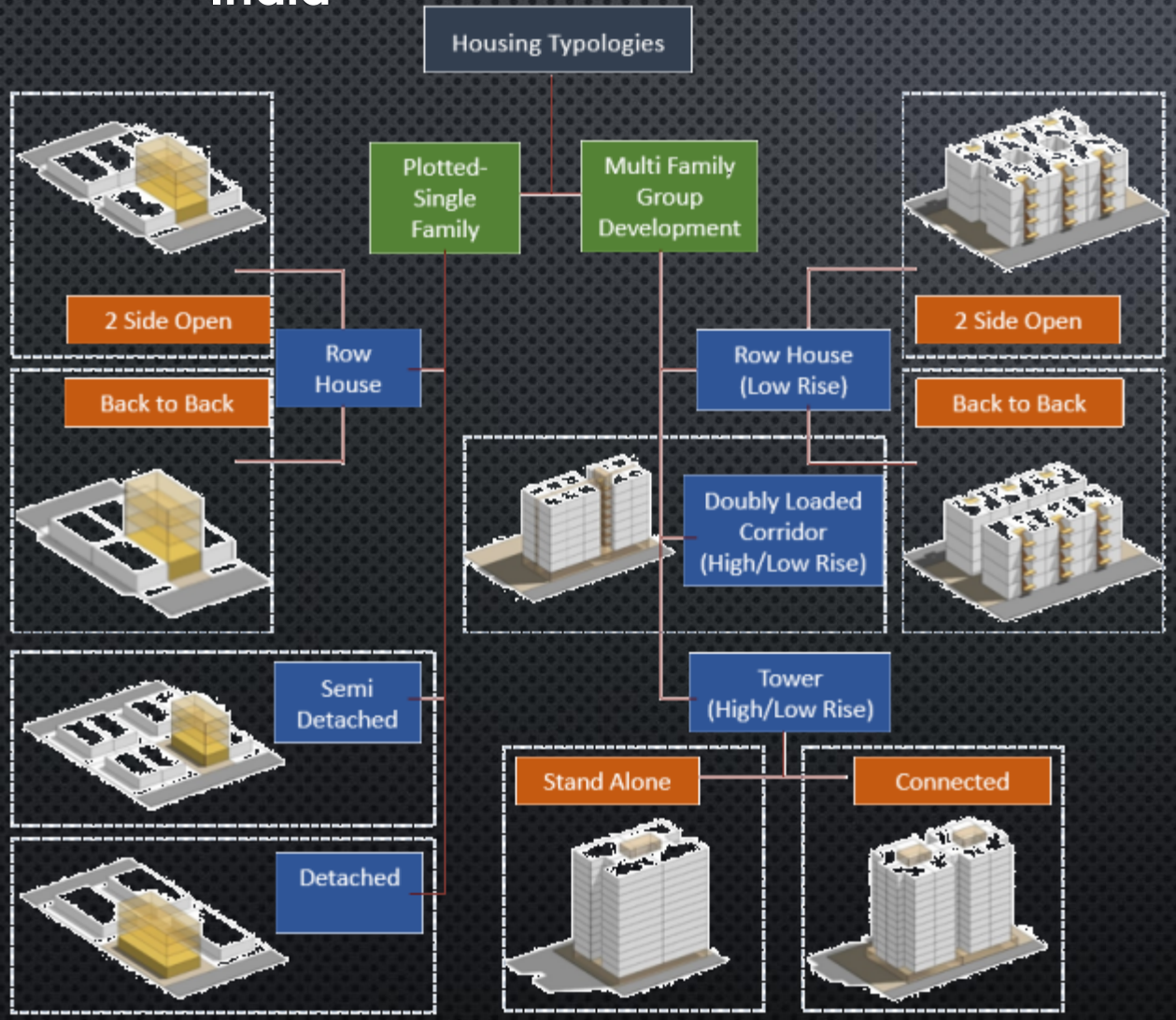


Eco Niwas Samhita



Residential Building Label

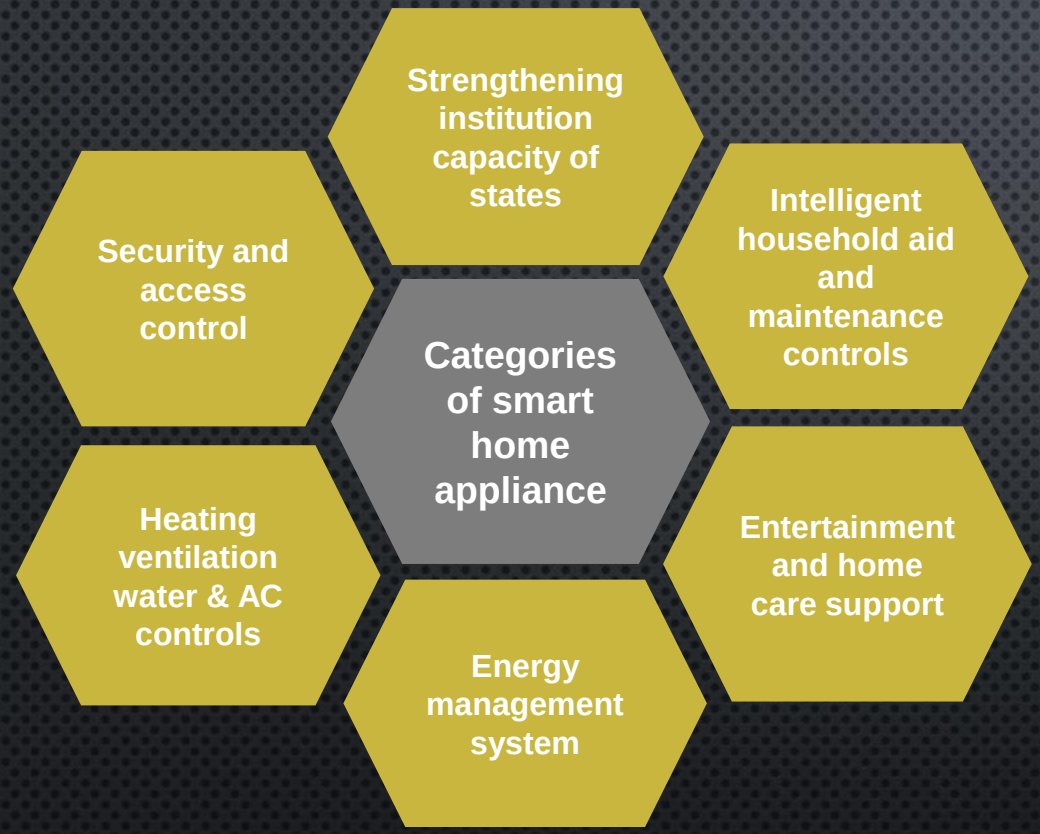
Replicable Design Catalogue for Model Residential Building Designs in India



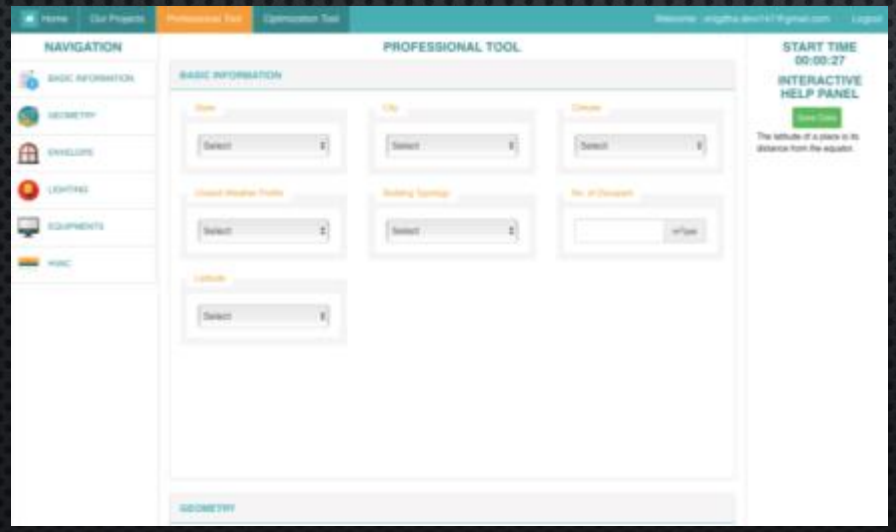
Energy Efficient Building Materials Directory of India

Smart Home Program - Technology Assessment Study and Pilot Design

Preparation of Database and Adaptive Model for Thermal Comfort of occupancy in residential buildings



Eco Niwas Tool



THANK YOU!

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