



Energy Efficiency Labels for Residential Buildings

Overview

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India's Electricity Scenario

Electricity Consumption in 2016-17=1066 BU

TOTAL ELECTRICITY CONSUMPTION (BU) IN 2016-17

Category	Percentage
Industry	40%
Agriculture	18%
Residential	24%
Commercial	9%
Other	7%
Railways & Traction	2%
Residential & Commercial Buildings	33%

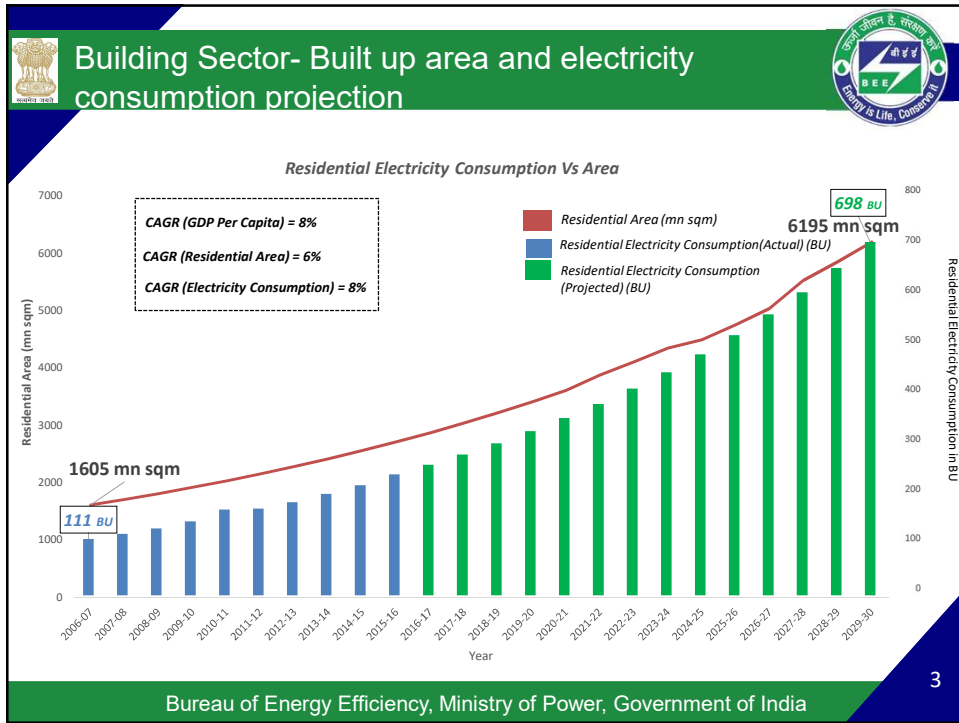
Electricity Consumption Pattern In Residential Buildings

Category	Percentage
Lighting	~28%
Fans	~34%
Refrigerator	~13%
HVAC	~7%
Others	~18%

Source: Energy Statistics 2018

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India will add **3 Billion m² by 2030** of New residential building w.r.t Year 2018

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Objective of labelling Program-Passport








- To provide information to consumers for EE Homes
- Energy Sustainability for India
- To achieve Indian NDC Targets
- Market Transformation for Energy Efficiency in each Home




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Features of labelling Program



Choice for Consumers to select EE Homes

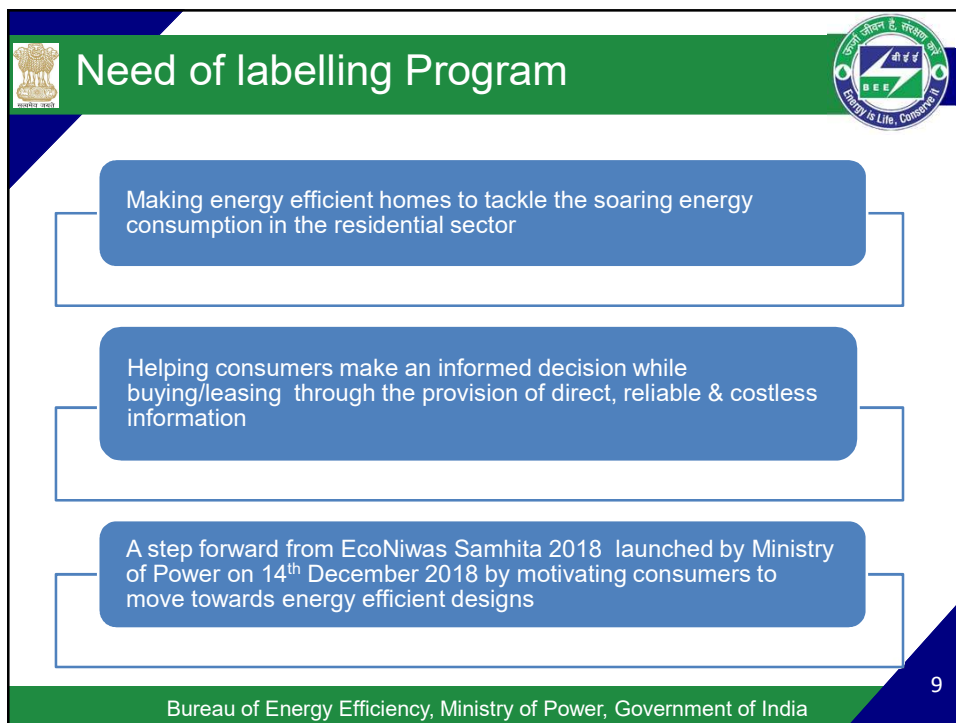
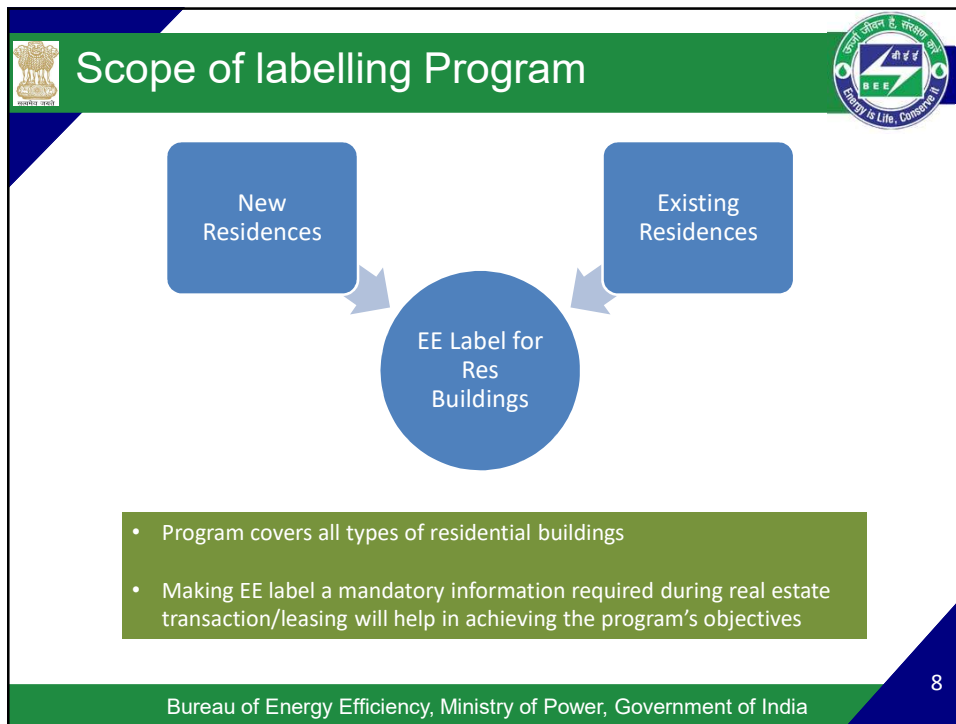
Encourages consumers to improve EE



Peer to Peer Comparison

Provide information on the potential and actual energy use of buildings

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Potential Savings from Labelling Program

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Potential of Energy Savings in New residential buildings

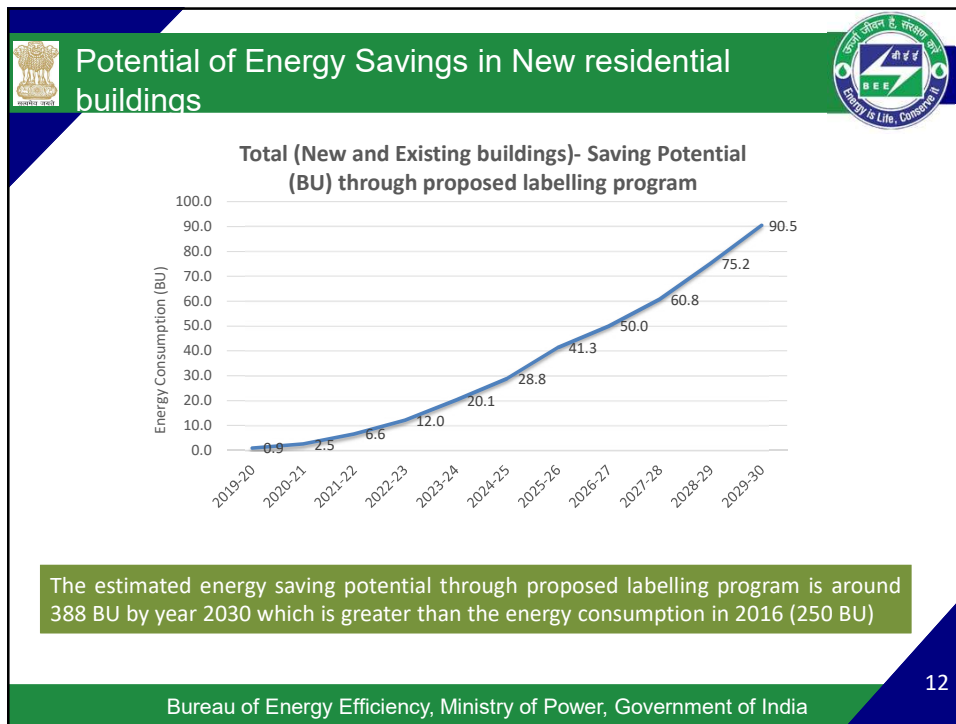
Summary of energy savings considering 2018-19 as base year

Year	Savings (MU)	CO2 million tonnes
2019-20	408.9	0.3
2020-21	1469.3	1.2
2021-22	3517.5	2.9
2022-23	6699.9	5.5
2023-24	11398.8	9.3
2024-25	20122.5	16.5
2025-26	30788.5	25.2
2026-27	37058.8	30.4
2027-28	44957.1	36.9
2028-29	55200.1	45.3
2029-30	66725.8	54.7
TOTAL	278347	228

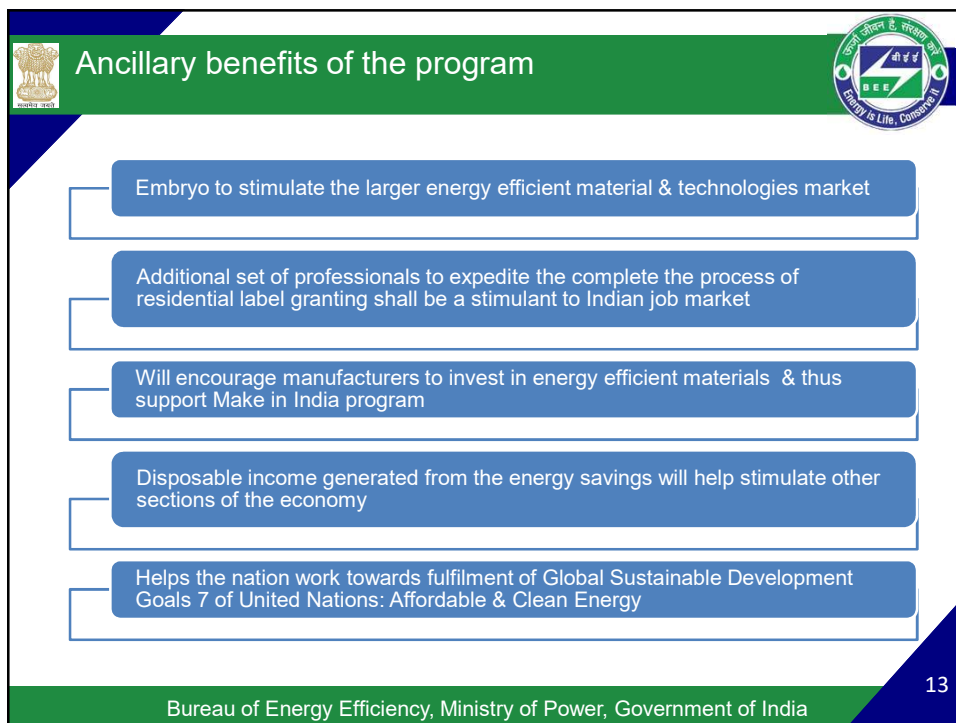
The energy saving potential through proposed labelling program is around 278 BU per year

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EE Label Criteria




- There is no minimum requirement with respect to the Area or Connected load (kW) for a building dwelling unit to be covered under this labeling program.
- ECBC-R technical specifications have been kept as the minimum thresholds for any building dwelling unit to be covered under this labeling program.


- ✓ Star Rating awarded in the basis on EPI (**Energy Performance Index**)
- ✓ Energy Performance Index = Annual Energy Consumption (kWh)/Built up area (m²)
- ✓ BEE has prepared an **online platform** for the User of Label to apply for seeking an award of label under this program
- ✓ The online platform will consists of a **Simulation Based Tool** which will be used to calculate the EPI of respective dwelling unit

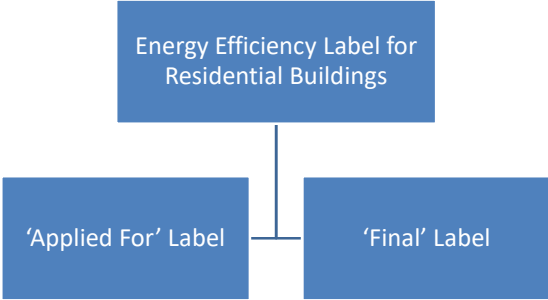
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Types of Label







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    A[Energy Efficiency Label for Residential Buildings] --> B['Applied For' Label]
    A --> C['Final' Label]
  
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- 'Applied For' Label: This label is applicable for new buildings with construction permit issued by the authorities having jurisdiction. This label shall be mainly used for marketing of the property.
- 'Final' Label: This label is applicable for existing and new buildings. For new building, this label can only be awarded after the occupancy certificate is issued by the authorities having jurisdiction.

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Thank You

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