



## Financing Green Housing

### What is the issue?

The percentage of greenhouse gases emitted from housing are expected to increase as housing demand accelerates, putting India's green transition targets in trouble.

### What are the issues with housing sector?

- Housing is a major greenhouse gas (GHG) emitting sector
  - Consuming about 24% of the country's electricity
  - Emitting over 20% of total GHG
- Conventional housing materials such as concrete and steel are made with energy-intensive processes.
- Households' electricity consumption has been on rise as climate change effects such as heat waves increase heavy-duty HVAC appliances and refrigerator usages.

### What steps were taken by the Indian government for green buildings?

- **The Indian Green Building Council (IGBC)** - It was formed by the Confederation of Indian Industry in 2001.
- It is the first rating program exclusively for the residential sector.
- It is the India's premier body for green building certification and related services.
- **Green Rating for Integrated Habitat Assessment (GRIHA)** - It is the National Green Building Rating System.
- It is an assessment tool to measure and rate a building's environmental performance.
- The rating is based on energy consumption, waste generation, renewable energy adoption etc.
- **Bureau of Energy Efficiency (BEE)** - It has launched the Energy Conservation Building Code (ECBC).
- It aims to optimize energy savings & launched a five-star rating scheme.
- **ECO-NIWAS** - Energy Conservation-New Indian Way for Affordable & Sustainable homes (ECO-NIWAS) is an online portal to increase awareness about sustainable building and energy-efficient homes.
- **LEED India** - Leadership in Energy and Environmental Design (LEED) India is another Green Building rating program.
- **TERI** - The Energy and Resources Institute (TERI) plays a very crucial role in developing green building capacities.
- **SUNREF** (Sustainable Use of Natural Resources and Energy Finance) Housing India programme was launched by the French Development Agency (AFD) and the National

Housing Bank (NHB).

- The project is co-funded by the European Union (EU).
- It aims at scaling up green affordable housing projects in India.

### What structural initiatives can reduce the ill effects of housing?

- **Lowering the GHG footprint** - The GHG footprint can be minimized by
  - Use of low-carbon materials
  - Following sustainable construction processes
  - Recycling building materials
- **Reducing energy usage** - An appropriate blend of active and passive design elements when constructing can reduce energy usage by over 35%.
- Replacing incandescent lights with LEDs reduces energy consumption by about 80%.
- **Reducing the heating and cooling demands** - Retrofitting roofs, windows, and doors that have higher energy performance can reduce heating and cooling demands by up to 40%.

### What are the challenges?

- **For builders** - Builders have no economic incentives to implement sustainability, as green homes do not command premium pricing.
- **For buyers** - Buyers have no motivation to pay more if it is rented out.
- **For banks** - Commercial banks are unlikely to provide debt as they wish to avoid an increase in the 'loan-value to house-value' ratio.
- Banks rarely provide capital for retrofitting as the borrowers are reluctant to provide their houses as collateral.

### How to overcome the challenges?

- **Credit enhancement** - The government, Multilateral Development Banks (MDBs), and Domestic Development Banks (DDBs) can support green housing sector through a credit enhancement mechanism.
- A subordinate loan can be funded by these institutions to cover the incremental cost of construction and design of energy-efficient houses.
- The savings from these houses over a period can be used to pay the loan back.
- **Credit guarantees** - Partial credit guarantees can be offered on energy-efficient homes that pay the lender if the borrower defaults.
- **Global examples** - In China, green housing mortgage securities are traded at a premium over conventional ones.
- In Singapore, Green Mark rated properties are expected to fetch a higher market premium.

### References

1. [The Hindu Businessline | Financing green housing](#)
2. [ANINEWS | SUNREF India - Outreach Programme on Green Housing](#)
3. [BEE | Bureau of Energy Efficiency \(BEE\)](#)

## Quick facts

### Premium pricing

- It is a strategy that involves tactically pricing your company's product higher than your immediate competition.

### Bureau of Energy Efficiency (BEE)

- The Government of India set up Bureau of Energy Efficiency (BEE) in 2002 under the provisions of the Energy Conservation Act, 2001.
- Primary objective -Reducing energy intensity of the Indian economy



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