Real estate market is expected to climb up to US$180 billion by 2020. More than 3 billion square meters of new residential buildings will be added by 2030. Electricity demand due to residential sector is expected to reach 698 billion units by 2030 from 2018 value of 250 billion units. Residential sector is expected to contribute 11% to India's GDP by 2020.

About the Program

The program aims to develop national energy efficiency label for residential buildings to enhance energy efficiency in the residential sector.

Energy Efficiency Label for Residential Buildings

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

4th Floor, Sewa Bhawan, R.K. Puram, New Delhi –110066

www.beeindia.gov.in
www.facebook.com/beeindiadigital
www.twitter.com/beeindiadigital

About Bureau of Energy Efficiency

BEE is statutory body under the Ministry of Power. It assists in developing policies and strategies with the primary objective of reducing energy intensity of the Indian economy. BEE coordinates with designated consumers, designated agencies and other organizations to identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act.

About GIZ

GIZ is a German federally-owned public benefit enterprise, working in the field of international cooperation for sustainable development. In India, GIZ has been working for over 60 years, jointly with partners and the current focal areas of Indo-German cooperation are Energy, Environment, Climate Change and Biodiversity, Sustainable Urban and Industrial Development and Sustainable Economic Development.

Supported By

A residential building label is a benchmark to compare a home over the other on the energy efficiency standards.
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Need of Residential Building Labeling Program

Real estate market is expected to climb up to US$ 180 billion by 2020.

Residential sector is expected to contribute 11% to India’s GDP by 2020.

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Electricity demand due to residential sector is expected to reach 698 billion units by 2030 from 2018 value of 250 billion units.
Program Objectives

The objective of the program is to provide:

- information to consumers on the energy efficiency standard of the Homes
- Facilitation in the implementation of EcoNiwas Samhita 2018
- a consumer driven market transformation business model solution for Energy Efficiency in housing sector
- steering the construction activities of India towards international best practices norms

Program Scope

The program is applicable for all single and multiple dwelling unit in the country for residential purpose

Benefits from the labeling program

- Cumulative saving of 388 billion units of electricity by 2030
- Reduction of carbon emission by 3 billion tones by 2030
- Increased uptake of energy efficient construction in India
- Facilitate energy efficient materials and technologies market supporting the “Make in India” initiative
- Improve environmental resilience and energy security
- Sustainable living standards
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Energy Savings

5 star rated home is 40% more energy efficient than 1 star rated home.

Annual saving of 90 Billion Units in the year of 2030

Labeling Types

“Applied For” label

Applicable for new buildings with construction permit issued by the authorities having jurisdiction.

“Final” Label

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.

Labeling Process

Outline of process for awarding BEE Star Label for Residential Buildings

Preparation Stage

- Pre-requisites for applying
- Evaluation for eligibility requirements

Application processing

- Registration
- Online application
- Scrutiny of application
- Approval for label

Implementation

- Transfer from “Applied for” to “Final” label
- Ownership transfer
- Changes in label, already awarded

M&V

- Verification audits
- Data reporting

For more information: www.econiwas.com and www.beeindia.gov.in
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Residential Building Star Rating Plan

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating</th>
<th>EPI Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot &amp; Dry</td>
<td>★</td>
<td>55 &lt; EPI ≤ 67</td>
</tr>
<tr>
<td></td>
<td>★★</td>
<td>47 &lt; EPI ≤ 55</td>
</tr>
<tr>
<td></td>
<td>★★★</td>
<td>38 &lt; EPI ≤ 47</td>
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<tr>
<td></td>
<td>★★★★</td>
<td>29 &lt; EPI ≤ 37</td>
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<tr>
<td></td>
<td>★★★★★</td>
<td>EPI ≤ 29</td>
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<tr>
<td>Composite</td>
<td>★</td>
<td>52 &lt; EPI ≤ 60</td>
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<tr>
<td></td>
<td>★★</td>
<td>45 &lt; EPI ≤ 52</td>
</tr>
<tr>
<td></td>
<td>★★★</td>
<td>37 &lt; EPI ≤ 45</td>
</tr>
<tr>
<td></td>
<td>★★★★</td>
<td>29 &lt; EPI ≤ 37</td>
</tr>
<tr>
<td></td>
<td>★★★★★</td>
<td>EPI ≤ 29</td>
</tr>
<tr>
<td>Warm &amp; Humid</td>
<td>★</td>
<td>58 &lt; EPI ≤ 64</td>
</tr>
<tr>
<td></td>
<td>★★</td>
<td>49 &lt; EPI ≤ 58</td>
</tr>
<tr>
<td></td>
<td>★★★</td>
<td>39 &lt; EPI ≤ 49</td>
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<tr>
<td></td>
<td>★★★★</td>
<td>30 &lt; EPI ≤ 39</td>
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<td></td>
<td>★★★★★</td>
<td>EPI ≤ 30</td>
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<tr>
<td>Temperate</td>
<td>★</td>
<td>28 &lt; EPI ≤ 31</td>
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<tr>
<td></td>
<td>★★</td>
<td>24 &lt; EPI ≤ 28</td>
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<td>21 &lt; EPI ≤ 24</td>
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<td>17 &lt; EPI ≤ 21</td>
</tr>
<tr>
<td></td>
<td>★★★★★</td>
<td>EPI ≤ 17</td>
</tr>
</tbody>
</table>

Legend

- Hot and Dry
- Warm and Humid
- Composite
- Temperate
- Cold
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