

## Technical Alternatives for certain GRIHA V2 & V3 requirements

August 2015

### Criterion 13: Appraisal 13.3.2

Previous Clause	Revised Clause	Change
<p>13.3.2 Minimum of 25% of the living area (as mentioned above) <b><i>should be daylighted</i></b> and adequate level of daylight is provided as prescribed by IS code as per clause 13.1.2 &amp; 13.1.3 (2 points- Mandatory) and/ or</p> <ul style="list-style-type: none"> <li>• If the adequate daylight factors are achieved in &gt; 50% of total living area - 1 point and/ or</li> <li>• If the adequate daylight factors are achieved in &gt; 75% of total living area - 2 points</li> </ul>	<p>13.3.2 Minimum of 25% of the living area (as mentioned above) should achieve daylight factors as prescribed by IS code SP 41 as per clause 13.1.2 &amp; 13.1.3 (2 points- Mandatory) and/ or</p> <ul style="list-style-type: none"> <li>• If the adequate daylight factors are achieved in &gt; 50% of total living area - 1 point and/ or</li> <li>• If the adequate daylight factors are achieved in &gt; 75% of total living area - 2 points</li> </ul>	<p>Daylight zone calculation is not mandatory in the revised clause.</p>

### Criterion 14: Appraisal 14.3.2

- Projects which do not fall under any of the following two EPI categories, should use the methodology provided in the table below to calculate the benchmark EPI for their project:
  - Category 1: Office/Academic institution building – 5 days a week, 8 hours a day
  - Category 2: Malls, hospitals, hotels, BPOs – 24 x 7 occupied buildings

The following table illustrates the methodology using the EPI for Composite climate:

Category 1 buildings	
<b>Initial GRIHA benchmark</b>	140 kWh/sqm/annum
<b>Methodology for extrapolation</b>	Linear
<b>Conditions</b>	<ol style="list-style-type: none"> <li>1. Total occupied hours cannot be greater than 16 per day</li> <li>2. Total number of operational days cannot be more than 6</li> </ol>
<b>Example 1</b>	The total number of occupied hours per day is 12 and total operational days in a week are 5. The benchmark for the project is: $140 \times (12/8) = 210$ kWh/sqm/annum
<b>Example 2</b>	The total number of occupied hours per day is 8 and total operational days in a week are 6. The benchmark for the project is: $140 \times (6/5) = 168$ kWh/sqm/annum
Category 2 buildings	
<b>Initial GRIHA benchmark</b>	450 kWh/sqm/annum
<b>Methodology for extrapolation</b>	Linear
<b>Conditions</b>	<ol style="list-style-type: none"> <li>1. Total operational days must be 7</li> <li>2. Total number of occupied hours cannot be less than 14 per day</li> </ol>
<b>Example 3</b>	The total number of occupied hours per day is 18. The benchmark for the project is: $450 \times (18/24) = 338$ kWh/sqm/annum

For projects with more than one type of space, please use weighted average.