IGBC Green Factory Building Rating System - Version 2.0

First Addendum – April 2025

- All the projects registered before 01 May 2025 can show compliance either through ***Version 2.0*** *or* ***Version 2.0 with first addendum*** *of the IGBC Green Factory Building Rating System*
- All projects registered post 01 May 2025 shall mandatorily show compliance using ***version 2.0 with first addendum*** *of the IGBC Green Factory Building Rating System*

Indian Green Building Council

<table>
<tr><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td>WC Mandatory Requirement 1</td><td>Rainwater Harvesting</td><td>

Mandatory updates as follows:

Table 2 Criteria to arrive at “One-day Rainfall”

<table>
<tr><th>S No</th><th>Average Peak Month Rainfall (in mm)</th><th>One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><td>1</td><td>Upto 500</td><td>6%</td></tr>
<tr><td>2</td><td>501 – 700</td><td>4.5%</td></tr>
<tr><td>3</td><td>701 & above</td><td>3%</td></tr>
</table>

</td></tr>
<tr><td>WC Credit 3</td><td>Enhanced Rainwater Harvesting</td><td>

Criteria updated as follows:

Case A: Rainwater Harvesting, Roof & Non-roof

Table 5 Criteria to arrive at “One-day Rainfall”

<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Average Peak Month Rainfall (mm)</th><th colspan="3">One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><th>2 points</th><th>3 points</th><th>4 points</th></tr>
<tr><td>1</td><td>Upto 500</td><td>8%</td><td>10%</td><td>12%</td></tr>
<tr><td>2</td><td>501 – 700</td><td>6%</td><td>7.5%</td><td>9%</td></tr>
<tr><td>3</td><td>701 & above</td><td>4%</td><td>5%</td><td>6%</td></tr>
</table>

Case B: High Groundwater Table

Table 6 Criteria to arrive at “One-day Rainfall”

<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Average Peak Month Rainfall (mm)</th><th colspan="3">One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><th>2 points</th><th>3 points</th><th>4 points</th></tr>
<tr><td>1</td><td>Upto 500</td><td>4%</td><td>6%</td><td>8%</td></tr>
<tr><td>2</td><td>501 – 700</td><td>3%</td><td>4.5%</td><td>6%</td></tr>
<tr><td>3</td><td>701 & above</td><td>2%</td><td>3%</td><td>4%</td></tr>
</table>

</td></tr>
</table>

<table>
<tr><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td colspan="2"></td><td>

Exemplary Performance:

This credit is eligible for exemplary performance under Innovation in Design & Operation by providing rainwater systems to capture run-off volume greater than ‘one-day rainfall’ as specified in Table 7.

Table 7 Criteria to arrive at “One-day Rainfall” for exemplary performance

<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Average Peak Month Rainfall (mm)</th><th colspan="2">One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><th>Case A</th><th>Case B</th></tr>
<tr><td>1</td><td>Upto 500</td><td>14%</td><td>10%</td></tr>
<tr><td>2</td><td>501 – 700</td><td>11%</td><td>8%</td></tr>
<tr><td>3</td><td>701 & above</td><td>8%</td><td>6%</td></tr>
</table>

</td></tr>
<tr><td>WC Credit 4</td><td>Wastewater – Treatment</td><td>

Newly Added

Notes:

- *In cases where the project is located within an industrial park with the facility to divert wastewater to a centralized or common wastewater treatment plant. The credit compliance can be demonstrated by diverting the wastewater.*

</td></tr>
<tr><td>WC Credit 5</td><td>Water Metering and Management</td><td>

Credit Requirement is modified as follows:

Points are awarded as follows:

<table>
<tr><th>Percentage of water metered for different end uses:</th><th>Points</th></tr>
<tr><td>≥ 80%</td><td>1</td></tr>
<tr><td>≥ 90%</td><td>2</td></tr>
</table>

</td></tr>
</table>

<table>
<tr><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td>WC Credit</td><td>Alternative Water Consumption</td><td>The WPR Percentage requirements have increased from 30%, 40%, 50% & 60% to 40%, 50%, 60% & 70%, respectively.

Points awarded are as follows:
<table>
<tr><th>Water Performance Ratio
(% Alternate Water to Total Water Consumption)</th><th>Credit Points</th></tr>
<tr><td>40</td><td>1</td></tr>
<tr><td>50</td><td>2</td></tr>
<tr><td>60</td><td>3</td></tr>
<tr><td>70</td><td>4</td></tr>
</table>
Exemplary Performance:
This credit is eligible for exemplary performance under Innovation in Design & Operation if the water performance ratio is greater than 75%</td></tr>
<tr><td>EE Mandatory Requirement 2</td><td>Minimum Energy Performance</td><td>Mandatory compliance is modified as follows:
(Removed requirements for Fans, Pumps & Motors).

Option 1: Prescriptive Method

The Factory buildings shall meet the following prescriptive measures, as applicable:

1) Building Envelope:</td></tr>
</table>

<table>
<tr><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Envelope Component</th><th>Air-Conditioned Spaces</th><th>Other Spaces</th></tr>
<tr><td>Overall Roof Assembly U-value (W/m2K)</td><td>1.2</td><td>1.5</td></tr>
<tr><td>Overall Wall Assembly U-value (W/m2K)</td><td>1.5</td><td>2.2</td></tr>
<tr><td rowspan="2">Solar Heat Gain Coefficient
All Climates except Cold (non-north façade)</td><td>0.40 (WWR < 40%)</td><td>0.6 (WWR < 40%)</td></tr>
<tr><td>0.35 (WWR > 40%)</td><td>0.5 (WWR > 40%)</td></tr>
<tr><td>Solar Heat Gain Coefficient (Cold Climate)</td><td>0.8</td><td>0.8</td></tr>
</table>
2) Lighting
The Lighting Power Density (LPD) in the building interior, exterior and parking areas shall be reduced by minimum 10% over ASHRAE 90.1 2016/NBC 2016 .
</td></tr>
<tr><td>EE Mandatory Requirement 3</td><td>Commissioning Plan for Building Systems</td><td>Mandatory compliance is modified as follows:
Compliance Options:
The commissioning authority is required to have at least 3 years of prior experience in equipment & systems.</td></tr>
<tr><td>EE Credit 2</td><td>Enhanced Energy Performance</td><td>Credit compliance is modified as follows:
❖ Option 1 - Prescriptive Approach:
Demonstrate that the project is able to enhance energy efficiency in the building by meeting the minimum (or maximum) values prescribed in Credit 2.1 to Credit 2.4.
Credit 2.1: Efficient Building Envelope Points: 3
Demonstrate the excellence in energy efficiency of building an envelope by meeting the specified requirements at the following envelope component level.</td></tr>
</table>

Credit Number / Location		Addendum

Envelope Component	Air-Conditioned Spaces	Other Spaces	Credit Points
Overall Roof Assembly U-value	0.6 W/m^{2}K	1.0 W/m^{2}K	1
	0.3 W/m^{2}K	0.5 W/m^{2}K	2
Overall Wall Assembly U-value	0.75 W/m^{2}K	1.5 W/m^{2}K	1
Solar Heat Gain Coefficient All Climates except Cold Climate (non-north façade)	0.3 (WWR < 40%)	0.4 (WWR < 40%)	1
	0.25 (WWR > 40%)	0.3 (WWR > 40%)	

Credit 2.2: Efficient Lighting System **Points: 3**

Demonstrate that the interior lighting power density of the project is reduced by at least 30% over the ECBC 2017 Baseline.

Reduction in LPD & Control	Points
≥ 30% Reduction in LPD	1
≥ 50% Reduction in LPD	2
50% of lighting load shall have automatic control* to reduce lighting energy use	1

*Lighting of all non-emergency exterior & interior areas such as warehouses, staircases, corridors, façade, pathways, should have at least one of the following lighting controls:
1. Daylight Control
2. Occupancy Control

Credit Number / Location		Addendum

Credit 2.3: Efficient HVAC System **Points: 4**

Use of centralised or unitary air conditioning system to demonstrate the compliance for HVAC System

Case A: Centralised Air Conditioning System

Project should use chillers as per Standards and Labelling Program of BEE. Points are awarded as below:

Star Rating	Points
3 Star	1
4 Star	2
5 Star	4

Note:
When a building is using multiple chillers, the overall energy efficiency rating (COP & ISEER) for compliance can be determined by calculating a weighted average of the energy efficiency ratings (COP & ISEER) of all the chillers and determine the equivalent star rating using the BEE's star labelling system.

OR

Case B: Other HVAC System or Non-conditioned Buildings

Project should use air conditioning system as per Standards and Labelling Program of BEE. Points are awarded as below:

Star Rating	Points
4 Star	1
5 Star	2

<table>
<tr><th>Credit Number / Location</th><th></th><th>Addendum</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>HVLS Fans</td><td>1</td></tr>
<tr><td>Evaporative Cooling System</td><td>1</td></tr>
</table>
Credit 2.4: Low Energy Cooling System Points: 2

Installed / implement any of the following low energy comfort systems in place of (or in conjunction with) refrigerant-based cooling systems.

1. Desiccant cooling system
2. Solar air conditioning
3. Tri-generation (waste-to-heat)
4. Radiant cooling system
5. Ground source heat pump
6. Adiabatic cooling system
</td></tr>
<tr><td>EE Credit 3</td><td>Green Power</td><td>
Credit compliance is modified as follows:
(Maximum achievable points increased from 6 points to 8 points)

<table>
<tr><th>The percentage total of onsite/offsite renewable energy to the total annual non-process energy consumption</th><th>Credit Points</th></tr>
<tr><td>≥ 30%</td><td>1</td></tr>
<tr><td>≥ 40%</td><td>2</td></tr>
<tr><td>≥ 50%</td><td>3</td></tr>
<tr><td>≥ 60%</td><td>4</td></tr>
<tr><td>≥ 70%</td><td>5</td></tr>
<tr><td>≥ 80%</td><td>6</td></tr>
</table>
</td></tr>
</table>

Credit Number / Location		Addendum		
			≥ 90%	7
			≥ 100%	8
EE Credit 5	Energy Monitoring	*The Credit Point has been revised from 4 to 2. Real-time Energy Performance is included as part of the exemplary.* *EE Credit 5: Energy Performance Monitoring* **EE Credit 5: Energy Monitoring** **Exemplary Performance:** This credit is eligible for exemplary performance under Innovation in Design & Operation if the project provides a monitoring system along with dashboards.		
MR Credit 2	Organic Waste Management	*Newly Added:* *Notes:* *• The project can also assess opportunities available in the community for the treatment of organic wastes.*		
MR Credit 7	Eco-Friendly Wood-Based Materials	*The Credit is now only applicable for New Buildings*		
IEQ Mandatory Requirement 2	Minimum Fresh Air Requirement	*The Credit is interpreted as follows:* ***For Mechanically Ventilated Spaces*** *Demonstrate that the fresh air ventilation in all regularly occupied areas meets the minimum ventilation rates, as prescribed in NBC 2016.* ***For Air-Conditioned Spaces*** *Demonstrate that the fresh air ventilation in all regularly occupied areas meets the minimum ventilation rates, as prescribed in ASHRAE Standard 62.1 - 2016.*		

<table>
<tr><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td>IEQ Credit 5</td><td>Indoor Air Quality</td><td>
Credit compliance is modified as follows:
Compliance Options
Option-1: Monitor IAQ Parameters
Point: 1 Measure IAQ parameters in all regularly occupied spaces and ensure that 80% of the measurements are well within the threshold values of Class C as specified in Annexure-VI. Points are awarded as follows:
<table>
<tr><th>IAQ Parameters</th><th>Points</th></tr>
<tr><td>IAQ parameters (CO_2, PM 2.5, CO, TVOC)</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>IEQ Credit 6</td><td>Daylighting</td><td>
Credit compliance is modified as follows:
Compliance Options:
The project shall provide adequate daylighting to meet or exceed the Useful Daylight Illuminance (UDI) between 100 lux and 2000 lux for at least 15% of the total floor area (regularly occupied spaces) for 50% of the potential daylit time in a year. The project may choose one of the following options to show credit compliance.
Table 12 Daylighting for regularly occupied spaces
<table>
<tr><th colspan="3">Percentage of regularly occupied space meeting UDI requirement</th><th rowspan="2">Points</th></tr>
<tr><th>Multi floor</th><th>Combination</th><th>Single floor</th></tr>
<tr><td>≥ 10%</td><td>≥ 20%</td><td>≥ 30%</td><td>1</td></tr>
<tr><td>≥ 15%</td><td>≥ 25%</td><td>≥ 35%</td><td>2</td></tr>
<tr><td>≥ 20%</td><td>≥ 30%</td><td>≥ 40%</td><td>3</td></tr>
<tr><td>≥ 25%</td><td>≥ 35%</td><td>≥ 45%</td><td>4</td></tr>
<tr><td>≥ 30%</td><td>≥ 40%</td><td>≥ 50%</td><td>5</td></tr>
</table>
</td></tr>
</table>