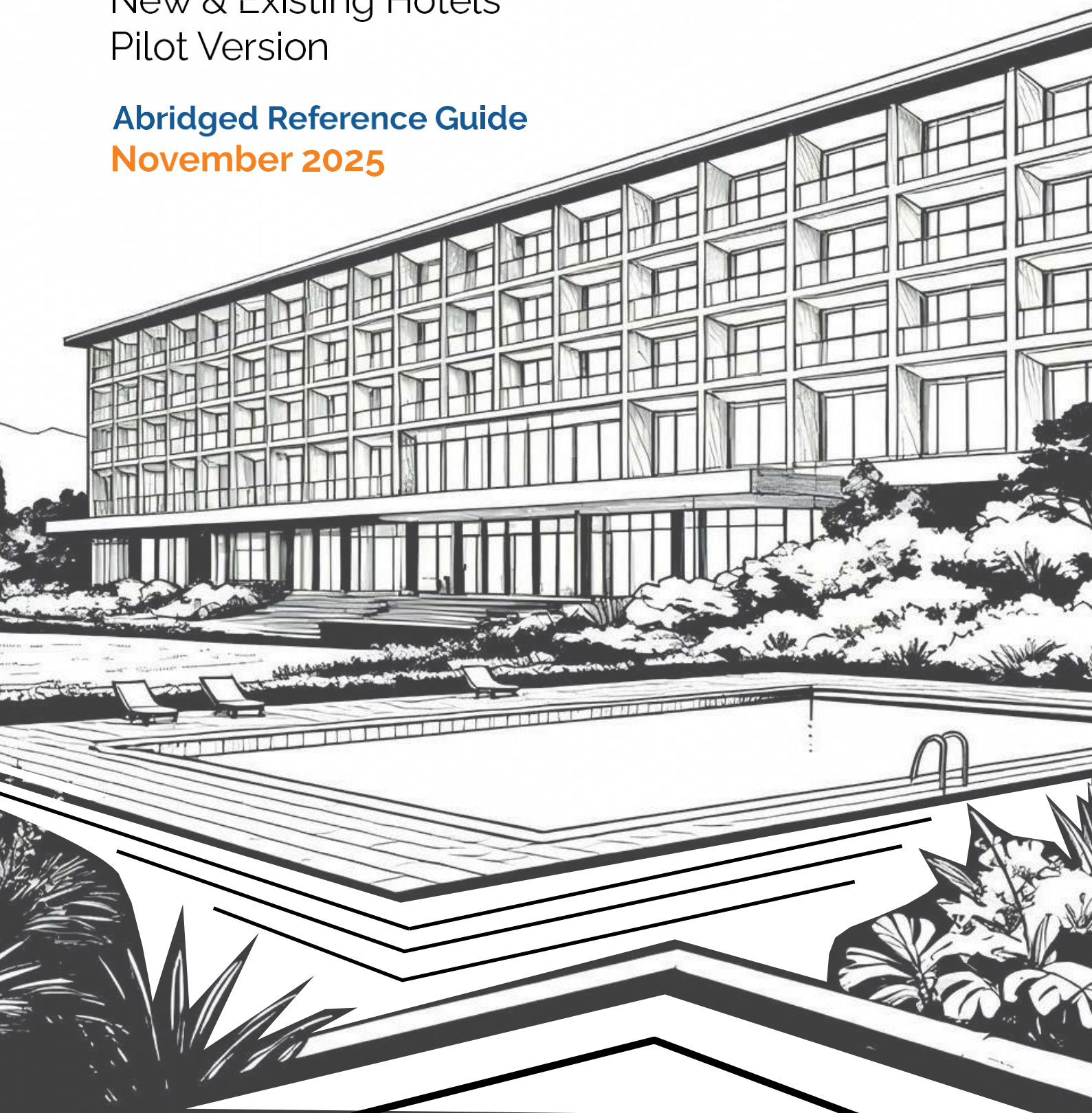


# Green Hotels Rating System (Draft)

New & Existing Hotels  
Pilot Version

Abridged Reference Guide  
November 2025



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## Foreword

The global hospitality sector is undergoing a significant transition as the imperatives of environmental stewardship, resource efficiency, and sustainable tourism gain prominence. Across international markets, hotels and resorts are increasingly expected to demonstrate responsible operational practices that minimise ecological impact while maintaining high standards of guest comfort and service excellence.

Responding to these evolving expectations, the industry is adopting advanced technologies, efficient management systems, and sustainable design strategies that support long-term resilience. In this environment, structured certification frameworks have emerged as essential instruments for guiding hospitality establishments toward verifiable and performance-based sustainability outcomes aligned with global best practices.

The **Green Hotels Rating System (Pilot Version)** has been developed to provide a comprehensive and methodical framework for evaluating and enhancing the environmental performance of hospitality facilities. The rating system establishes clear criteria to support reductions in resource consumption, improvements in operational efficiency, enhanced guest health and well-being, and a strengthened commitment to ecological preservation and community impact.

This framework seeks to assist the hospitality sector in integrating sustainability as a core component of its operations, thereby contributing to the advancement of responsible tourism and reinforcing the industry's role in global environmental leadership.




## Acknowledgements

The Green Hotels Rating System (pilot version) has been made possible through the efforts of many dedicated experts from hospitality industry

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## Introduction

The Indian hospitality industry has emerged as a key contributor to the nation's economic growth, accounting for nearly 5% of the GDP and supporting millions of livelihoods across the country. With India's diverse cultural heritage, architectural richness, and wide range of ecological and geographical attractions, the hotel sector continues to expand rapidly to cater to domestic and international travellers alike.

As the sector grows, it faces increasing environmental challenges—rising energy and water consumption, waste generation, and the overall ecological impact of large-scale operations. These concerns highlight the need for responsible development practices that ensure business growth while safeguarding natural resources. Hotels, being significant consumers of energy and water, have an important role to play in integrating sustainability into every stage of their lifecycle—from design and construction to daily operations and maintenance.

This has reiterated the need for a more responsible planning and management of this industry in order to minimize its negative impacts by addressing issues like water conservation, energy efficiency and handling of waste. Also maximise its potential for a sustainable development along with enhancing the guests' experience and well-being.

Against this background, the Green Hotels Rating System® is launched to guide and evaluate the adoption of sustainable practices in the hospitality sector. This framework serves as a comprehensive tool for hotel developers, designers, and operators to integrate measurable green strategies that reduce environmental impacts while enhancing operational performance, guest experience, and overall sustainability outcomes.

## Benefits of Green Hotels

With the global emphasis on sustainability and combating climate change, the Green Hotels Rating System creates a major opportunity to position the hospitality sector experience as a unique guests' takeaway in a low-impact way. Green Hotels can offer tremendous benefits, both tangible and intangible. The most tangible benefits include a 10–20% reduction in energy consumption and 10–20% reduction in water consumption, leading to substantial savings in operational costs from the very first day of occupancy. In addition, effective waste management practices ensure over 75% waste diversion from landfills, while efforts to use local resources and green landscaping contribute to the local economy and biodiversity enhancement. Intangible benefits of Green Hotels include enhanced guest comfort and experience, improved indoor environmental quality, strengthened brand value, and the ability to attract environmentally conscious travellers from across the globe.

## **National Priorities Addressed in the Rating System**

The Green Hotels Rating System addresses the most important National priorities which include water conservation, handling waste, energy efficiency, reduced use of fossil fuels and health & well-being of occupants. The rating system requires the application of National standards and codes such as the NBC, ECSBC, MoEF guidelines, CPCB/ State PCB guidelines and all local regulations. The overarching objective is to be better than the national standards so as to create new benchmarks. The overarching objective is to better the National standards so as to create new benchmarks.

### **1. Water Conservation:**

The Green Hotels Rating System encourages use of water in a self-sustainable manner through reduce, recycle, and reuse strategies. By adopting this rating programme, green hotels can save potable water to an extent of 10 - 20%.

### **2. Handling of Waste:**

Handling waste in hotels is extremely difficult as most of the waste generated is not segregated at source and has a high probability of going to land-fills. This continues to be a challenge to the municipalities which needs to be addressed. The intent is to address this by encouraging hotels to segregate the waste generated and creating a circular economy.

### **3. Energy Efficiency:**

The Hospitality sector is a large consumer of electrical energy. The energy savings that can be realized by adopting this rating program can be to the tune of 10 – 20%.

### **4. Reduced Use of Fossil Fuels:**

Fossil fuel is a slowly depleting resource, world over. The use of fossil fuel for transportation has been a major source of pollution. The rating system encourages the use of alternate fuels for transportation and renewable energy.

### **5. Health and Well-being of Occupants:**

Health and well-being of occupants is the most important aspect of the Green Hotels Rating System. The rating system ensures facilities to enhance health and occupant well-being which are critical in a Hotel.

## **Key Features**

The Green Hotels Rating System is a voluntary and consensus based programme. The rating system has been developed based on materials and technologies that are presently available. The objective of the Green Hotels Rating System is to facilitate a holistic approach to create environment friendly hotels, through sustainable architectural design, water efficiency, effective handling of waste, energy efficiency and focus on guests' comfort & well-being.

The rating system evaluates certain mandatory requirements & credit points using a prescriptive approach and others on a performance based approach. The rating system is evolved so as to be comprehensive and at the same time user-friendly. The programme is fundamentally designed to address National priorities and quality of life for occupants. Some of the unique aspects addressed in this rating system are as follows:

- Sustainable site planning to minimize environmental impact and enhance climate resilience of the hotel premises
- Optimization of water use during both construction and operational phases through innovative conservation strategies
- Energy efficiency measures to reduce consumption and promote the use of renewable energy sources
- Efficient waste management systems ensuring maximum waste diversion and recycling
- Advancing overall carbon neutrality in hotel operations
- Enhancement of guest wellness and comfort through improved indoor environmental quality, healthy F&B choices, and green housekeeping practices
- Encouragement of innovation in sustainable design to continuously elevate environmental performance and guest experience

### **Scope of Green Hotels Rating**

The Green Hotels Rating System ® is designed for hotels, both existing and newly built of any size or Hotel category.

### **Validity**

The rating awarded for the hotels would be valid for a period of 3 years. Thereafter, the hotels have to apply for re-certification with the prevailing version. The hotels can also apply for re-certification within 3 years of award of the rating for a superior rating, if new green features are implemented or existing green features are enhanced in the hotels.

### **The Future of Green Hotels rating system**

Many new green building materials, equipment and technologies are being introduced in the market. With continuous up-gradation and introduction of new green technologies and products, it is important that the rating programme also keeps pace with current standards and technologies.

Therefore, the rating programme will also undergo periodic revisions to incorporate the latest advances and changes. It is important to note that project teams applying for the Green Hotels Rating System should register their projects with the latest version of the rating system. During the course of implementation, projects have an option to transit to the latest version of the rating system.

The certification body will highlight new developments on its website ([www.igbc.in](http://www.igbc.in)).

## Overview and Process

The Green Hotels Rating System addresses two main focus areas as follows:



The guidelines detailed under each mandatory requirement & credit enables the design and construction of Hotels of all sizes and types (as defined in scope). Different levels of green hotels certification are awarded based on the total credits earned. However, every green hotel should meet certain mandatory requirements, which are non- negotiable.

The various levels of rating awarded are:

Certification Level	Recognition
Certified	Best Practices
Silver	Outstanding Performance
Gold	National Excellence
Platinum	Global Leadership

### A. When to use Green Hotels Rating System

The Green Hotels Rating System is designed primarily for both new and existing Hotels. The project team can evaluate all the possible points to apply under the rating system using a suitable checklist (New Hotels and Existing Hotels). The project can apply for the Green Hotels Rating System, if it can meet all mandatory requirements and achieve the minimum required points.

## **B. Registration**

Project teams interested in the Green Hotels Rating System for their project must first register. Projects can be registered on IGBC website ([www.igbc.in](http://www.igbc.in)) under the Green Hotels Rating System. The website includes information on registration fee for member companies as well as non-members.

Registration is the initial step which helps establish contact with the certification body and provides access to the required documents, templates, important communications and other necessary information.

The web site will have all important details on the Green Hotels Rating System registration & certification - process, schedule and fee.

## **C. Certification**

To achieve the Green Hotels Rating System, the project must satisfy all the mandatory requirements and the minimum number of credit points.

The project team is expected to provide supporting documents at preliminary and final stage of submission for all the mandatory requirements and the credits attempted.

The project needs to submit the following:

1. General information of project including
  - a) Project brief stating project type, different type of spaces, occupancy, number of buildings, area statement, etc.,
  - b) General drawings (in PDF format only):
    - i. Master/ Site plan
    - ii. Landscape plan
    - iii. Storm water drain layout
    - iv. Parking plans
    - v. Photographs/ Rendered images
2. Filled-in Templates (in excel format)
3. Narratives and supporting documentation such as drawings, calculations (in excel sheets), declarations/ contract documents, purchase invoices, manufacturer cut- sheets/ letters/ material test reports, etc., for each mandatory requirement/ credit.

A certificate and mountable plaque is provided to projects on achieving certification.

## **D. Precertification**

Projects by owners/ developers can register for Precertification. This is an option provided for projects aspiring to get precertified at the design stage. Precertification also gives the developer a unique advantage to market the project to potential buyers.

The documentation submitted for precertification must detail the project design features which will be implemented. The rating awarded under precertification is based on the project's intention to conform to the requirements of the Green Hotels Rating System. It is important to note that the precertification rating awarded need not necessarily correspond to the final rating.

Precertified projects are required to provide the status of the project to the certification body, in relation to the rating, once in every six months until the award of the final rating.

Those projects which seek precertification need to submit the following documentation:

1. General information about project, including
  - a) Project brief stating project type, different type of spaces, occupancy, number of floors, area statement, etc.,
  - b) General drawings (in PDF format only):
    - i. Master/ Site plan
    - ii. Landscape plan
    - iii. Storm water drain layout
    - iv. Parking plans
    - v. Photographs/ Rendered images
2. Filled-in templates
3. Narratives and supporting documentation such as conceptual drawings, estimate / tentative calculations (in excel sheets), declarations from the owner, etc., for each of the mandatory requirement and credit

A certificate is awarded to projects on precertification.

The Precertification is valid for 3 years from the date of award, after which projects are required to apply for the full certification (or) continue to submit construction progress reports once in six months to get an extension certificate for Precertification rating.

The project documentation is submitted in two phases – preliminary submittal and final submittal:

- Preliminary submission involves all mandatory requirements and minimum number of credits. After the preliminary submission, review is done by third party assessors and review comments would be provided within 30 days. The next phase involves submission of clarifications to preliminary review queries and final submittal. This review will also be provided within 30 days, after which the rating is awarded.
- It is important to note that the mandatory requirements and credits earned at the preliminary review are only considered as anticipated. These mandatory requirements and credits are not awarded until the final documents are submitted, along with additional documents showing implementation of design features. If there are changes in any 'credit anticipated' aspects after preliminary review, these changes need to be documented and resubmitted during the final review.

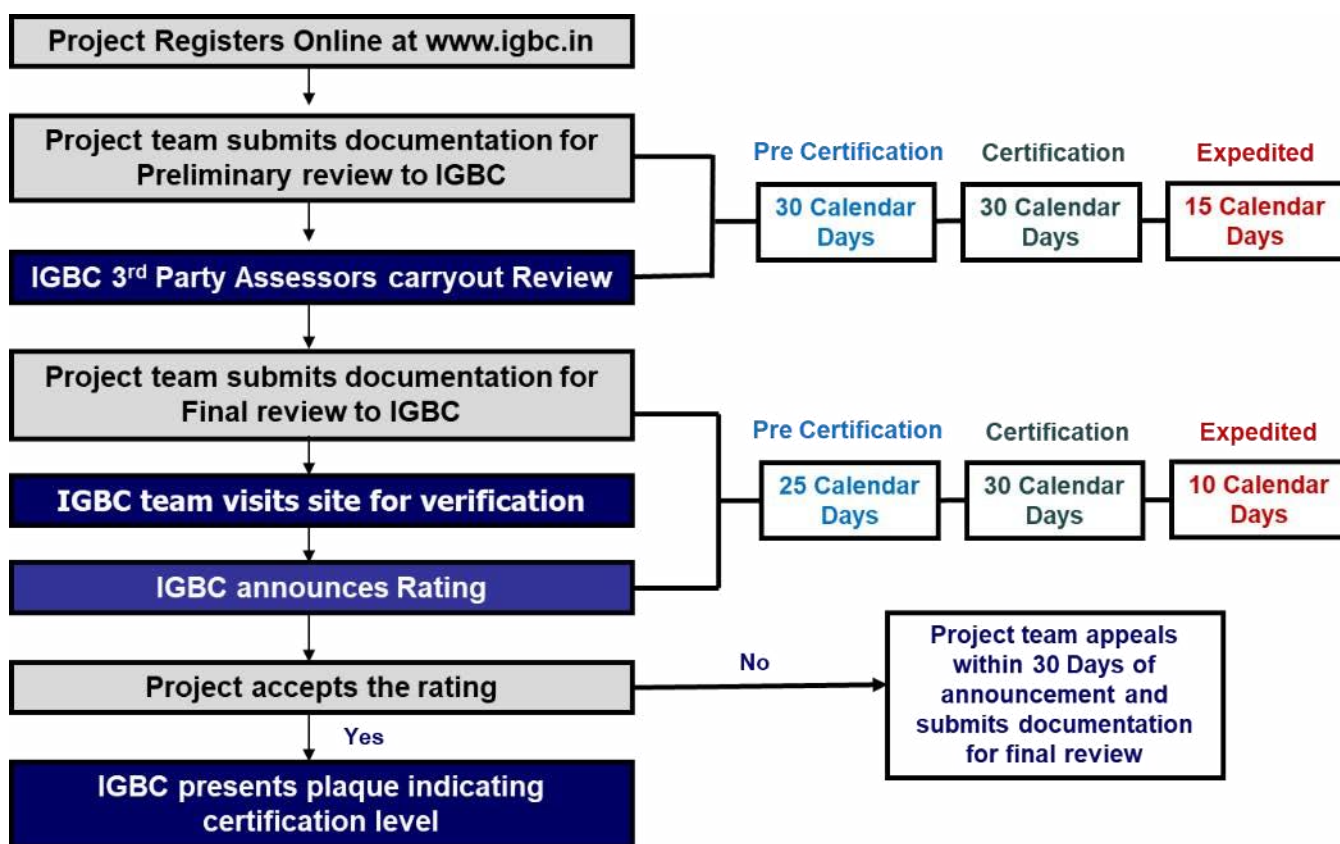


The threshold criteria for Certification & Precertification are as under:

Certification Level	New Hotel	Existing Hotel	Recognition
Certified	50 – 59	50 – 59	Best Practices
Silver	60 – 69	60 – 69	Outstanding Performance
Gold	70 – 79	70 – 79	National Excellence
Platinum	80 – 100	80 – 100	Global Leadership



### Certification Process





## **E. Credit Interpretation Ruling (CIR)**

In some instances, the design team can face certain challenges in applying or interpreting a mandatory requirement or a credit. It can also happen in cases where the project can opt to achieve the same intent through a different compliance route.

To resolve this, IGBC uses the process of Credit Interpretation Ruling (CIR) to ensure that interpretations are consistent and applicable to other projects as well.

The following are the steps to be followed in case the project team faces a problem:

- Refer the Abridged Reference Guide for description of the credit intent, compliance options and approach & methodologies.
- Review the intent of the mandatory requirement/ credit and self-evaluate whether the project satisfies the intent.
- Review the Credit Interpretation Ruling web page for previous CIRs on the relevant mandatory requirement or credit. All projects registered under the Green Hotels Rating System will have access to this page.
- If a similar CIR has not been addressed or does not answer the question sufficiently, submit a Credit Interpretation request. Only registered projects are eligible to post CIRs. Two CIRs are answered without levying any fee, and for any CIR beyond the first two CIRs, a fee is levied.

## **F. Appeal**

In rare cases, mandatory requirements/ credits get denied due to misinterpretation of the intent. On receipt of the final review and if the project team feels that sufficient grounds exist to appeal a credit denied in the final review, the project has an option to appeal to Certification body for reassessment of denied mandatory requirements or credits. The documentation for the mandatory requirements or credits seeking appeal may be resubmitted to the certification team along with necessary fee. The timeline to review such documentation is 30 days. If an appeal is pursued, please note that a different review team will be assessing the appeal documentation. The following documentation should be submitted:

1. General information of project including
  - a) Project brief stating project type, different type of spaces, occupancy, number of buildings, area statement, etc.,
  - b) General drawings (in PDF format only):
    - i. Master/ Site plan
    - ii. Landscape plan
    - iii. Storm water drain layout
    - iv. Parking plans

- v. Photographs/ Rendered views
- 2. Filled-in Template for respective mandatory requirement/ credit
- 3. Resubmittal and appeal submittal documentation for only those mandatory requirement/ credits that the project is appealing for. Also, include a narrative for each appealed mandatory requirement/ credit to describe how the documents address the reviewers` comments and concerns.

#### **G. Fee**

Registration, Certification and CIR fee details are available on IGBC website ([www.igbc.in](http://www.igbc.in)) or can be obtained from IGBC ([igbc@cii.in](mailto:igbc@cii.in)).

#### **H. Updates and Addenda**

As the rating system continues to improve and evolve, updates addenda and errata to the abridged reference guide will be made available through IGBC website. These additions will be incorporated in the next version of the rating system.

## Project Checklist

Green Hotel Certification		Credit Points Available	
		New Hotels	Existing Hotels
Sustainable Hotel Design & Operations		69	69
Sustainable Sites		6	5
SS MR 1	Statutory Compliances	Required	Required
SS MR 2	Soil Erosion Control	Required	Required
SS MR 3	Universal Design	Required	Required
SS Credit 1	Sustainable Landscape	2	2
SS Credit 2	Heat Island Reduction, Roof & Non-roof	2	2
SS Credit 3	Nocturnal Environment Protection	1	1
SS Credit 4	Climate Resiliency Mitigation	1	NA
Water Conservation		18	19
WC MR 1	Rainwater Harvesting	Required	Required
WC MR 2	Water Efficiency	Required	Required
WC Credit 1	Enhanced Rainwater Harvesting	3	3
WC Credit 2	Enhanced Water Efficiency	4	4
WC Credit 3	Water Efficient Dishwashing System	2	2
WC Credit 4	Water Efficient Laundry System	2	2
WC Credit 5	Irrigation Management	1	1
WC Credit 6	Waste Water Treatment	1	1
WC Credit 7	Alternative Water Performance	3	3
WC Credit 8	Water Metering and Management	2	3

<b>Energy Efficiency</b>		<b>21</b>	<b>25</b>
EE MR 1	Eco Friendly Refrigerant	Mandatory	Mandatory
EE MR 2	Minimum Energy Performance	Mandatory	Mandatory
EE MR 3	Commissioning Plan for Building Equipment & Systems	Mandatory	NA
EE Credit 1	Enhanced Eco-Friendly Refrigerant	1	2
EE Credit 2	Enhanced Energy Performance	8	8
EE Credit 3	Energy Efficient Kitchen System	3	3
EE Credit 4	Energy Efficient Cold Room	1	1
EE Credit 5	Domestic Hot Water System	2	2
EE Credit 6	Energy Efficient Laundry System	1	1
EE Credit 7	Energy Efficient Dish Washing System	1	1
EE Credit 8	Energy Recovery Systems	2	2
EE Credit 9	Periodic Energy Assessment	NA	2
EE Credit 10	Energy Performance	2	3
<b>Material Stewardship</b>		<b>8</b>	<b>8</b>
MS MR 1	Waste Segregation & Circularity	Required	Required
MS Credit 1	Sustainable Procurement	2	2
MS Credit 2	Waste Footprint Reduction	2	2
MS Credit 3	Green Products	2	2
MS Credit 4	Organic Waste Management	2	2
<b>Carbon Neutrality</b>		<b>15</b>	<b>11</b>
CN Credit 1	Embodied Carbon optimization	4	NA
CN Credit 2	Green Power	5	5

CN Credit 3	Promotion of Local Economy	2	2
CN Credit 4	Sustainable Transportation	2	2
CN Credit 5	GHG Inventorisation and Roadmap	2	2
<b>ENHANCED GUEST EXPERIENCE</b>		<b>31</b>	<b>31</b>
<b>Environment for Guest Wellbeing</b>		<b>14</b>	<b>13</b>
EGW MR 1	Minimum Fresh Air Ventilation	Required	Required
EGW MR 1	Tobacco Smoke Control	Required	Required
EGW Credit 1	Daylighting	1	1
EGW Credit 2	Connectivity with Nature	1	1
EGW Credit 3	Low Emitting Materials	1	NA
EGW Credit 4	Wellbeing Facilities	3	3
EGW Credit 5	Vernacular Art and Culture	1	1
EGW Credit 6	Inclusive Guest Experience	1	1
EGW Credit 7	IEQ Monitoring and Management	3	3
EGW Credit 8	Guest Comfort Feedback	1	1
EGW Credit 9	Green Education	2	2
<b>Healthy Food and Beverages</b>		<b>6</b>	<b>6</b>
HFB Credit 1	Drinking Water Quality	1	1
HFB Credit 2	Responsible Sourcing of Food & Beverage	2	2
HFB Credit 3	Wellness Menu	3	3
<b>Green Housekeeping</b>		<b>6</b>	<b>7</b>
GH Credit 1	Chemical Footprint Reduction	1	2
GH Credit 2	Sustainable Linen Policy	1	1

GH Credit 3	Wellness Toiletries	2	2
GH Credit 4	Swimming Pool for Guest Wellness	1	1
GH Credit 5	Organic Fertilizers	1	1
<b>Innovation and Exemplary Performance</b>		<b>6</b>	<b>6</b>
INN Credit 1	Innovation in Design Process	4	4
INN Credit 2	IGBC Accredited Professional	2	2
	<b>Total</b>	100	100

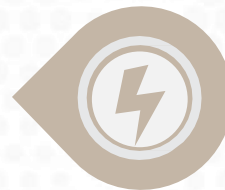
<b>Certification Level</b>	<b>New Hotels</b>	<b>Existing Hotels</b>	<b>Recognition</b>
Certified	50 – 59	50 – 59	Best Practices
Silver	60 – 69	60 – 69	Outstanding Performance
Gold	70 – 79	70 – 79	National Excellence
Platinum	80 – 100	80 – 100	Global Leadership

# GREEN HOTELS DESIGN & OPERATIONS

SUSTAINABLE  
SITES



WATER  
CONSERVATION



ENERGY  
EFFICIENCY



MATERIAL  
STEWARDSHIP



CARBON  
NEUTRALITY





# SUSTAINABLE SITES



## Statutory Compliances

### SS Mandatory Requirement 1

New Hotel	Existing Hotel
-----------	----------------

#### Intent:

Ensure that the building(s) complies with necessary statutory and regulatory codes.

#### Compliance Options:

The project shall comply with following statutory approvals from the Government of India or State Government authorities, as applicable:

##### ❖ Option 1: Building Approvals

- Approved site plan (and/ or) building plans for construction, as applicable
- Occupancy certificate from Local Authority
- Environmental clearance certificate, if applicable
- Pollution Control Board (PCB) License - Consent to Establish (CTE) and Consent to Operate (CTO)

(AND)

##### ❖ Option 2: Food Service

- Food Safety and Standards Authority of India (FSSAI) License

(AND)

##### ❖ Option 3: Hotel Star Classification

- Project approval or classification/reclassification certificate issued by the Ministry of Tourism, Government of India, if applicable.

#### Note:

- *Buildings with 20,000 sq.m built-up area or more shall submit 'Environmental Clearance Certificate' or 'Environmental Impact Assessment (EIA) Study Report', as applicable, approved by Ministry of Environment, Forests & Climate Change (MoEFCC) [DG1] or State Environment Impact Assessment Authority (SEIAA) to show compliance for certification*

#### Documentation Required:

##### Precertification

- i. Site plan/ Building plan approved by local Government authority.
- ii. Project commencement certificate issued by local Government authority.
- iii. Environmental Clearance Certificate and/or EIA Study Report approved by MoEFCC or SEIAA, if applicable.
- iv. Pollution Control Board (PCB) – Consent to Establish (CTE)



- v. Project Approval by the Ministry of Tourism, Government of India, if applicable.
- vi. Declaration from Project Owner confirming that all statutory approvals applicable at the design stage are valid and/or under process.
- vii. Photographs of the site and building taken at various stages of construction.

**Certification**

- i. As-built drawings (site plan, floor plans, elevations, sections, etc.,) approved by local Government authority.
- ii. Occupancy certificate from Local Authority.
- iii. Environmental Clearance Certificate and/or EIA Study Report approved by MoEFCC or SEIAA, if applicable.
- iv. Valid Pollution Control Board (PCB) Consents – Consent to Establish (CTE) and Consent to Operate (CTO).
- v. Food Safety and Standards Authority of India (FSSAI) License, where food service facilities are operational.
- vi. Project classification or reclassification certificate issued by the Ministry of Tourism, Government of India, if applicable.



## Soil Erosion Control

New Hotel	Existing Hotel
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### SS Mandatory Requirement 2

#### Intent:

Control soil erosion and sedimentation, thereby reducing negative impacts to the site and surroundings.

#### Compliance Options:

##### ❖ Option 1: Construction-Phase Erosion & Sediment Control

Implement the following measures during construction, as applicable:

- Soil erosion control measures taken during and after construction (post-occupancy) must conform to the best management practices highlighted in the National Building Code (NBC) of India 2016, Part 10 - Landscape Development, Signs and Outdoor Display Structures, Section 1 - Landscape Planning and Design and Development, Chapter 11 - Protection of Landscape During Construction.

*Fertile topsoil (150 to 200 mm in depth) to be stockpiled, preserved, stabilized, and its fertility must be maintained during preconstruction activities for future reuse or donation, as per NBC 2016 guidelines. (Not applicable for Brownfield Sites and redevelopment projects)*

- Develop measures to address soil erosion, such as desilting chambers, sediment traps, landscaping after occupancy.
- Site Barricade
- Protection of existing trees
- Wheel washing
- Sprinkling of water on site
- Sediment Basin/ Traps
- Soil stabilisation through mulching, bunding

##### ❖ Option 2: Post-Construction Erosion Stabilisation & Control

Implement the following measures post construction, as applicable:

- Erosion control blankets / coir mats
- Turfing and grass establishment
- Shrub and tree planting
- Mulching
- Stone pitching on slopes
- Stabilized landscaping
- Bio-swales and soil-binding vegetation
- Vegetation
- Storm water channels with sediment traps/ check dams
- Soil stabilizers/ binders to enhance the cohesion of the soil



**Notes:**

- *If the topsoil in the project is not fertile (or) suitable for preservation, in such a case the project must provide soil fertility test report indicating the soil is not fertile*
- *The stored topsoil shall be utilized as the finished grade for planting areas either within the site or externally. If the stored topsoil is not utilized on-site, appropriate measures must be taken to ensure its proper reuse. Donation of substantial quantity of fertile topsoil could be to other projects, nurseries and farmers.*

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:**

**Precertification**

- i. Narrative describing the Erosion and Sedimentation Control (ESC) measures proposed in the project, during construction and post occupancy
- ii. Conceptual site drawings highlighting ESC measures proposed on-site during construction and post occupancy
- iii. Photographs showing ESC measures taken at various stages of construction, before construction and during construction, as applicable based on current status of project.

**Certification**

- i. Narrative describing the Erosion and Sedimentation Control (ESC) measures implemented, during construction and post occupancy
- ii. Site drawings highlighting ESC measures implemented on-site, during construction and post occupancy
- iii. Photographs showing ESC measures taken at various stages of construction, before construction, during construction and post occupancy
- iv. For existing hotel projects, copy of ESC policy/measures to be implemented during future construction/ renovation work in the project which must include pre-construction, during construction and post occupancy measures proposed to control soil erosion and sedimentation.



## Universal Design

### New Hotel

### Existing Hotel

## SS Mandatory Requirement 3

### Intent:

Ensure that the hotel design caters to differently abled and senior citizens.

### Compliance Options:

Design the hotel to provide the following measures for differently abled and senior citizens in accordance with the guidelines of the National Building Code (NBC) of India 2016.

#### ❖ Dedicated Parking for Differently Abled

Preferential parking for differently-abled individuals shall be provided in accordance with NBC 2016 – (Part 3, Annexure B-3.5) that includes,

- One differently abled car park space shall be provided for the first 100 parking spaces, and additional car park space for every 250 parking spaces thereafter.
- Dedicated parking shall be accessible within 30m of the main entrance.
- Signages shall be installed for dedicated differently abled parking at a minimum height of 2.1 m.
- Symbol of accessibility shall be painted on floor surface as per NBC 2016 -Part 3, Annexure B-3.3.

#### ❖ Easy access to the main entrance of the building.

- The clear width of the accessible entrance door shall not be less than 900mm.

#### ❖ Non-slippery ramps, with handrails on at least one side (as applicable).

- Provide minimum one accessible entrance with provision of ramp. Ramps designs shall conform to NBC 2016 – Part 3, Annexure B-6.2.2 - Table 10 and B-6.2.1 c, B-6.2.4. single row of tactile ground surface indicator warning blocks shall be placed at the beginning and end of each ramp conform to NBC-2016, Part-3.

#### ❖ Elevator

- The elevator opening shall be minimum 900 mm. Additionally Audio and braille assistance shall be provided in lifts for visually impaired people as per NBC 2016-Part 3, Annexure B-6.4.

#### ❖ Restrooms (toilets) in common areas

- Provide minimum one unisex wheelchair user accessible restroom that shall conform to NBC 2016 – Part 3, Annexure B-9.2.2, with central placement of water closet and provision of washbasin.
- The floor surfaces shall be slip resistant, anti-glare and firm.
- Signages at entrance of accessible toilets shall conform to NBC 2016 – Part 3, Annexure B-9.18.

#### ❖ Main walkways / pathways with adequate width in exterior areas.

#### ❖ Uniformity in floor level for hindrance-free movement in common areas & exterior areas.

#### ❖ Visual warning signage in common areas & exterior areas.



### **Exemplary Performance:**

This credit is not eligible for exemplary performance.

### **Documentation Required:**

#### **Precertification**

- i. Narrative describing the measures proposed in the hotel for differently abled people and senior citizens
- ii. Tentative calculations indicating the total number of preferred car park spaces (for differently abled people and senior citizens) to the total number of car park spaces
- iii. Tentative calculations indicating the total number of restrooms (toilets) provided in the common areas (for differently abled people and senior citizens) in the hotel
- iv. Conceptual drawings highlighting the measures proposed for differently abled people and senior citizens

#### **Certification**

- i. Narrative describing the measures implemented in the hotel for differently abled people and senior citizens
- ii. Calculations indicating the total number of preferred car park spaces (for differently abled people and senior citizens) to the total number of car park spaces
- iii. Calculations indicating the total number of restrooms (toilets) provided in the common areas (for differently abled people and senior citizens) in the hotel
- iv. Drawings highlighting the measures implemented for differently abled people and senior citizens.
- v. Photographs showing all the measures implemented
- vi. Manufacture brochures for the measures implemented, as applicable. (Optional for existing hotels)





## Sustainable Landscape

**New Hotel**
**Existing Hotel**

### SS Credit 1

**Credit Points: 2**

#### Intent:

Minimize site disturbances and restore green cover/vegetation to enhance habitat and biodiversity.

#### Compliance Options:

##### ❖ Option 1: Natural Topography or Vegetation

**Credit Points: 2**

Demonstrate that the hotel has retained or restored green cover or vegetation, for at least 15% of the site area.

Percentage of Site Area with Green Cover / Vegetation	Points
> 15%	1
> 20%	2

#### Notes:

- Grass medians, grass pavers, jogging track, open-air theatre, parking areas, driveways, walkways, playground, swimming pool, etc., are considered as site disturbance.
- Vegetation on the ground shall only be considered; vegetation over built structures such as roofs, basement, podiums, etc., shall not be considered.
- Only native / adaptive vegetation shall be considered for this credit calculation.
- Potted plants shall not be considered as vegetation.
- Artificial vegetation shall not be considered for this credit calculation.

(OR)

##### ❖ Option 2: Plantation of Tree Saplings:

**Credit Points: 2**

Plant tree saplings that can mature into grown up trees within the next 5 years on the project site, as per the below criteria (including existing and transplanted trees in the project site).

Site Area	Number of Tree Saplings (Including Existing and Transplanted Trees)
For every 80 sq.m	1 or more

**Notes:**

- *If the Ministry of Environment & Forest (MoEF) or local authorities prescribe stringent criteria, then the project shall comply with the respective criteria.*
- *Trees/ Saplings shall be in place at the time of occupancy.*
- *Trees transplanted from other sites to the project site can also be considered to show credit compliance.*
- *Calculation of existing fully grown trees (and / or) tree saplings is allowed to show credit compliance.*
- *Only native / adaptive trees and tree saplings shall be considered for this credit calculation.*
- *Trees / Saplings planted in pots shall not be considered for credit calculations.*

**(OR)****❖ Option 3: Landscape Area Provision per Guest Room****Credit Points: 2**

Demonstrate provision of sufficient landscape area per guest room, thereby improving outdoor environmental quality.

$$\text{Landscape area per guest room} = \frac{\text{Total landscape area (sq.m)}}{\text{Total No.of guest rooms}}$$

Star classification	Landscape Area / Guest Room	Points
3-Star & Below Hotels	≥ 5 m <sup>2</sup> per guest room	1
	≥ 7 m <sup>2</sup> per guest room	2
4-Star & 5-Star Hotels	≥ 10 m <sup>2</sup> per guest room	1
	≥ 12 m <sup>2</sup> per guest room	2

**Notes:**

- *Vegetation on the ground and vegetation over built structures such as roofs, basement, podiums, etc can be considered*
- *Only native / adaptive vegetation shall be considered for this credit calculation.*
- *Potted plants shall not be considered as vegetation.*
- *Artificial vegetation shall not be considered for this credit calculation.*

**Exemplary Performance:**

The project is eligible for exemplary performance under Innovation & Exemplary performance, if the green cover/vegetation exceeds 20% of the total site area (or) minimum of two tree saplings for every 80 m<sup>2</sup> of the site area (or) landscape area per guest room greater than 9 m<sup>2</sup> for 3-Star and below hotels, and greater than 14 m<sup>2</sup> for 4-Star and 5-Star hotels.

**Documentation Required:****Precertification****Option 1: Natural Topography or Vegetation**

- i. Conceptual site drawing highlighting the area with green cover or vegetation
- ii. Tentative calculations indicating the total area with green cover or vegetation on the ground to the total site area, in percentage
- iii. Tentative list of turf, drought tolerant, native and adaptive species proposed in the project

**Option 2: Plantation of Tree Saplings**

- i. Narrative describing the strategies proposed to plant new saplings and retention of existing trees, within the project site
- ii. Conceptual landscape drawing highlighting the tree saplings and existing trees
- iii. Tentative calculations indicating the total site area (in acres), tree saplings and existing trees
- iv. Tentative list of the existing trees/ plant species and proposed species which can mature into fully grown trees for shading, within the next 5 years

**Option 3: Landscape Area Provision per Guest Room**

- i. Conceptual site drawing highlighting the total landscaped area within the project boundary
- ii. Tentative calculations indicating total landscape area to the total number of guest rooms, in percentage
- iii. Tentative list of landscape species and proposed species in the project site

**Certification****Option 1: Natural Topography or Vegetation**

- i. Site drawing highlighting the area with green cover or vegetation
- ii. Calculations indicating the total area with green cover or vegetation on the ground to the total site area, in percentage
- iii. List of turf, drought tolerant, native and adaptive species proposed in the project
- iv. Photographs showing the site area with green cover or vegetation

**Option 2: Plantation of Tree Saplings**

- i. Narrative describing the strategies implemented to plant new saplings and retention of existing trees, within the project site
- ii. Landscape drawing highlighting the tree saplings and existing trees
- iii. Calculations indicating the total site area (in acres), tree saplings and existing trees
- iv. List of the existing trees/ plant species and new saplings which can mature into fully grown trees for shading, within the next 5 years
- v. Photographs showing the tree saplings and existing trees



**Option 3: Landscape Area Provision per Guest Room**

- i. Site drawing highlighting the total landscaped area within the project boundary
- ii. Calculations indicating total landscape area to the total number of guest rooms, in percentage
- iii. List of landscape species (existing trees/ plant species, turf, drought tolerant, native and adaptive species) used in the project
- iv. Photographs showing the landscaped areas



## Heat Island Reduction, Roof & Non-roof

New Hotel	Existing Hotel
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### SS Credit 2

### Credit Points: 2

#### Intent:

Minimize heat island effect so as to reduce negative impact on micro-climate.

#### Compliance Options:

##### New Hotels

### Credit Point: 1

#### ❖ Option 1: Non-roof Impervious Areas

Implement green measures to minimize Urban Heat Island effect by covering at least 50% of non-roof impervious areas.

- Shade from existing tree cover that can mature into grown-up trees with medium to large canopy in the next 5 years
- Open grid or grass pavers
- Hardscape materials with SRI of at least 29 (and not higher than 64)

#### Notes:

- *Non-roof impervious areas include, but not limited to, footpaths, pathways, roads, driveways, bicycle lanes uncovered surface parking, and other impervious areas.*
- *Exposed non-roof area need not include utility areas such as areas covered with DG sets, transformer, STP etc.,*
- *Trees / Saplings shall be in place at the time of certification.*
- *Artificial vegetation shall not be considered.*
- *SRI values of reflectance materials shall be as per ASTM Standards.*
- *All areas, including podium, covered surface parking and utility blocks, which are exposed to the sky (at and above ground level) shall be considered for the credit calculation under roof area*

#### (AND/OR)

#### ❖ Option 2: Roof Areas

### Credit Point: 1

Implement green measures to minimize Urban Heat Island (UHI) effect by covering at least 95% of the exposed roof area.

Solar Reflective Index (SRI) values for different roof types:-

Roof Type	Slope	Minimum SRI Value	Maximum SRI Value
Low-sloped roof	< 2:12	78	64



Steep-sloped roof	> 2:12	29	–
Podium/ Basement Roof	-	29	64

**Notes:**

- *SRI values of high reflectance materials shall be as per ASTM Standards.*
- *All roof areas, including podium, Lift / staircase headroom, covered surface parking, utility blocks which are exposed to the sky shall be considered for this credit calculation.*
- *Exposed roof area does not include equipment platforms, areas with Solar Photovoltaic (SPV) & Solar Water Heaters (SWH), skylights, driveways, roads, play areas, etc.*
- *Exposed parking covered with either metal/permanent roof would be considered under roof area calculation.*

**Existing Hotels****❖ Option 1: UHI Mapping****Credit Point: 1**

Demonstrate that the project has conducted a heat mapping study to identify Urban Heat Island (UHI) hotspots.

**(AND/OR)****❖ Option 2: UHI Mitigation****Credit Point: 1**

Demonstrate measures implemented to minimize Urban Heat Island (UHI) effect for both roof and non-roof impervious areas.

- Provide high SRI materials, reflective coatings, tiles, or vegetated roofs for the exposed roof area.
- Provide tree cover, grass pavers, open-grid pavements, or high SRI materials for the non-roof impervious areas.

**Notes:**

- *The study should identify UHI hotspots across the project, such as exposed roofs, paved surfaces, and parking areas.*
- *The hotel shall conduct a thermal imaging or heat mapping study using Infrared (IR) camera-based survey to assess surface temperatures of both roof and non-roof areas.*
- *The thermal imaging shall be carried out under representative conditions (preferably during peak daytime temperature).*
- *The analysis should include infrared images with temperature scales and legends and comparative temperature readings between shaded and unshaded areas.*
- *Based on the findings, the project shall implement mitigation measures such as high SRI coatings, vegetative roofs, or shaded pavements.*
- *The final report should include Interpretation report highlighting key heat gain zones, pre- and post-implementation images (where applicable) and summary of actions taken to address identified hotspots.*



### **Exemplary Performance:**

This credit is not eligible for exemplary performance.

### **Documentation Required:**

#### **Precertification**

#### **New Hotel**

#### **Non-roof Impervious Areas**

- i. Narrative describing the proposed strategies to reduce heat island effect from non-roof areas
- ii. Conceptual site drawing highlighting the non-roof impervious (hardscape) areas and the areas covered with mitigation measures
- iii. Tentative calculations indicating the non-roof area covered with mitigation measures to the total exposed non-roof impervious area, in percentage
- iv. Tentative list of the existing trees/ plant species which can mature into fully grown trees for shading, within the next 5 years

#### **Roof Areas**

- i. Narrative describing the proposed strategies to reduce heat island effect from roof areas
- ii. Conceptual Roof drawing highlighting the area to be covered with high reflective roof materials/ vegetation
- iii. Tentative calculations indicating the total effective roof area covered with high reflective roof materials/vegetation to the total exposed roof area (excluding service & utility areas), in percentage
- iv. Manufacturer datasheets of the proposed high reflective roof materials indicating the Solar Reflective Index (SRI) value.

#### **Certification**

#### **New Hotel**

#### **Non-roof Impervious Areas**

- i. Narrative describing the strategies to reduce heat island effect from non-roof areas
- ii. Site drawing highlighting the non-roof impervious (hardscape) areas and the areas covered with mitigation measures
- iii. Calculations indicating the non-roof area covered with mitigation measures to the total exposed non-roof impervious area, in percentage
- iv. List of the existing trees/ plant species which can mature into fully grown up trees for shading, within the next 5 to 8 years
- v. Purchase invoice/ Payment receipt of the reflective materials, if sourced
- vi. Manufacturer letters/ brochures indicating the Solar Reflective Index (SRI) of the reflective materials
- vii. Photographs showing the measures implemented to reduce heat island effect from non- roof areas





### **Roof Areas**

- i. Narrative describing the proposed strategies to reduce heat island effect from roof areas
- ii. Roof drawing highlighting the area covered with high reflective roof materials/vegetation
- iii. Calculations indicating the total effective roof area covered with high reflective roof materials/vegetation to the total exposed roof area (excluding service & utility areas), in percentage
- iv. Purchase invoice/ Payment receipt of the reflective materials, if sourced
- v. Manufacturer letters/ brochures indicating the Solar Reflective Index (SRI) of the reflective materials
- vi. Photographs showing the measures implemented to reduce heat island effect from roof areas

### **Existing Hotel**

#### **Option 1: UHI Mapping**

- i. Narrative highlighting the methodology adopted for conducting the thermal imaging and heat mapping study
- ii. Thermal imaging and heat mapping analysis report indicating the zones covered under the study and identified Urban Heat Island (UHI) hotspots for roof and non-roof areas.

#### **Option 2: UHI Mitigation**

- i. Narrative describing the strategies adopted to minimize the Urban Heat Island (UHI) effect.
- ii. Layout highlighting roof and non-roof impervious areas covered with Urban Heat Island (UHI) reduction measures
- iii. Calculations indicating the total effective roof area covered with Urban Heat Island (UHI) reduction measures to the total exposed roof area, in percentage
- iv. Calculations indicating the total effective non-roof area covered with Urban Heat Island (UHI) reduction measures to the total exposed non-roof area, in percentage
- v. Purchase invoice/ Payment receipt of the reflective materials, if sourced
- vi. Manufacturer letters/ brochures indicating the Solar Reflective Index (SRI) of the reflective materials
- vii. Photographs showing the measures implemented to reduce heat island effect from roof and non-roof areas



## Nocturnal Environment Protection

New Hotel	Existing Hotel
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**SS Credit 3**
**Credit Point: 1**

### Intent:

Reduce light pollution to enhance night sky access thereby protecting the nocturnal environment.

### Compliance Options:

#### ❖ Upward Lighting

Design exterior lighting such that all site and building-mounted luminaires produce no upward lighting.

**(AND)**

#### ❖ Light Trespass

Provide thick blinds/curtains or automatic shades for all exterior openings to block at least 90% of light transmitted through glazing to the outside.

### Exemplary Performance:

This credit is not eligible for exemplary performance.

### Documentation Required:

#### **Precertification**

- i. Narrative describing the design strategies proposed for outdoor light pollution reduction in the project along with the details of proposed shading devices such as blinds, curtains, or automated shades for exterior openings, where applicable.
- ii. Conceptual site drawing highlighting the exterior lighting fixtures proposed in the project
- iii. Manufacturer cutsheet of the exterior lighting fixtures indicating upward lighting percentage

#### **Certification**

- i. Narrative describing the strategies implemented for outdoor light pollution reduction in the project along with the details installed shading devices, such as blinds, curtains, or automated shades for exterior openings, where applicable.
- ii. Site drawing highlighting the exterior lighting fixtures installed in the project
- iii. Manufacturer cutsheet letter of the exterior lighting fixtures indicating upward lighting percentage



- iv. Purchase invoice of the exterior lighting fixtures
- v. Day and night time photographs showing the typical exterior lighting fixtures
- vi. Photographs of installed shading devices, such as blinds, curtains, or automated shades, for exterior openings, where applicable.



## Climate Resilience and Mitigation

**New Hotel**
**Existing Hotel**
**SS Credit 4**
**Credit Point: 1**

### Intent:

Minimize the impact of climate-related hazards such as floods, cyclones, heatwaves, droughts, and landslides, so as to reduce vulnerability and ensure long-term operational resilience and sustainability.

### Compliance Options:

#### ❖ Climate Risk Assessment and Mitigation

- Identify the climate risks associated with the site using recognized tools or hazard-mapping studies.
- Integrate suitable design and operational measures to mitigate identified risks and enhance resiliency.

### Notes:

- Project team can analyze associated climate risks: <https://ndma.gov.in/>

The project shall demonstrate adoption of mitigation measures as per the table below:

Hazard Category	Hazard Type	Mitigation Measures
<b>Water</b>	Local / Urban Flood, River / Lake Flood, Flash Flood	<ul style="list-style-type: none"> <li>• Maintain adequate site elevation (minimum 6 m above the identified flood level) and grade at least 60% of the site perimeter away from buildings to facilitate natural drainage.</li> <li>• Design on-site stormwater retention systems and provide permeable paving for ≥80% of the surrounding hardscape.</li> <li>• Elevate critical utilities and electrical systems above the highest recorded flood level.</li> <li>• Adopt flood-resistant construction materials and ensure doors, windows, and openings are watertight.</li> <li>• Incorporate flood barriers or raised thresholds at all guest entrances, service doors, and ventilation openings to restrict floodwater entry.</li> <li>• Design landscape areas with bioswales and rain gardens to enhance on-site stormwater infiltration and delay surface runoff.</li> </ul>



	Coastal / Tidal Flood, Storm Surge, Tsunami	<ul style="list-style-type: none"><li>• Maintain the required setback from the high tide line and provide protective buffers such as dunes or vegetated berms.</li><li>• Design ground floors on stilts or raised podiums to allow free flow of water during surge or inundation events.</li><li>• Use corrosion-resistant and water-tolerant construction materials in marine exposure zones.</li><li>• Seal underground utilities and provide emergency drainage pumps and sumps.</li><li>• Provide reinforced structural design and anchoring systems to resist lateral and uplift forces induced by storm surge or tsunami waves.</li><li>• Establish coastal vegetation buffers and shoreline stabilization measures to mitigate erosion and reduce wave energy impact.</li></ul>
<b>Wind</b>	Cyclone, Typhoon, Hurricane, Tornado, Downburst	<ul style="list-style-type: none"><li>• Design structural systems in accordance with IS 875 (Part 3) for regional wind speeds and associated pressure zones.</li><li>• Anchor roofs, facades, solar panels, and external fixtures to resist uplift and lateral wind loads.</li><li>• Provide wind-rated openings, storm shutters, and impact-resistant glazing in vulnerable zones.</li><li>• Provide dense vegetated windbreaks or tree belts along the site perimeter to reduce wind velocity and protect structures.</li><li>• Ensure all outdoor equipment, signage boards, lighting poles, and landscape elements are securely anchored to withstand uplift and lateral wind forces</li><li>• Design entryways and lobbies with wind-lock vestibules or buffer zones to minimize internal pressure variations and wind infiltration.</li><li>• Adopt aerodynamic building forms and roof profiles to reduce wind uplift and turbulence around the structure.</li></ul>



<b>Fire</b>	Local Fire, Wildfire	<ul style="list-style-type: none"> <li>• Use fire-rated materials (doors, dampers, and smoke seals, insulation, and sealants) and assemblies for external facades, roofs, and internal partitions.</li> <li>• Maintain vegetation clearance (minimum 10 m) around the building perimeter and provide fire buffer zones.</li> <li>• Install automatic detection, alarm, and sprinkler systems integrated with fire hydrant and hose reel networks.</li> <li>• Install tempered safety glass conforming to IS 2553 and fire-rated doors (≥60 min integrity) along escape routes.</li> <li>• Provide spark arrestors in exhaust systems and ensure internal cavity barriers in wall assemblies.</li> <li>• Use Flame Retardant Low Smoke (FRLS) cables and (Earth Leakage Circuit Breaker) ELCBs for electrical safety and segregate high- and low-voltage wiring.</li> </ul>
<b>Geoseismic</b>	Earthquake, Landslide, Subsidence	<ul style="list-style-type: none"> <li>• Design all structures in accordance with IS 1893 and IS 13920 for seismic resilience, incorporating ductile detailing and shear walls where applicable.</li> <li>• Conduct geotechnical and slope stability investigations prior to construction and adopt slope protection or retaining structures where required.</li> <li>• Anchor equipment, utility lines, and non-structural components to prevent displacement during seismic events.</li> <li>• Provide flexible joints for pipelines and ensure proper surface drainage to prevent erosion or ground movement.</li> </ul>

### Documentation Required:

#### Precertification

- Detailed report identifying climate-related risks at the project site along with the tentative design measures proposed to mitigate identified risks and enhance resilience.
- Tentative layout indicating design interventions for climate risk mitigation
- Photographs of interventions implemented to mitigate identified climate-related hazards, if available



**Certification**

- i. Detailed report identifying climate-related risks at the project site along with the design measures proposed to mitigate identified risks and enhance resilience
- ii. Layout indicating design interventions for climate risk mitigation
- iii. Photographs of interventions implemented to mitigate identified climate-related hazards



WATER  
CONSERVATION





## Rainwater Harvesting

New Hotel

Existing Hotel

### WC Mandatory Requirement 1

#### Intent:

Enhance ground water table and reduce municipal water demand through effective rainwater management.

#### Compliance Options:

##### ❖ Case A: Rainwater Harvesting

Design rainwater harvesting system to capture/ percolate at least 'one-day rainfall\*' runoff volume from roof and non-roof areas in the hotels.

\* *One-day rainfall can be derived from 'percentage of average peak month rainfall' given in Table - 2.*

*To arrive at average peak month rainfall, consider an average of at least last 5 years peak month rainfall (of the respective year).*

Criteria to arrive at 'One-day Rainfall'

Average Peak Month Rainfall (in mm)	One-day Rainfall (% of Average Peak Month Rainfall)
Upto 250	9%
251 – 350	7.5%
351 – 500	6%
501 – 700	4.5%
701 & above	3%

##### ❖ Case B: High Groundwater Table

In areas where the Central / State Ground Water Board does not recommend artificial rain water recharge (or) if the groundwater table is less than 8 meters, the project is required to provide justification for not implementing rainwater harvesting system.

#### Notes:

- *For rainfall information, refer Indian Meteorological Department data at <http://www.imd.gov.in>*
- *Runoff volume = Surface area x Runoff Coefficient x Rainfall.*
- *For run-off coefficients for typical surface types, refer Table 3 - Run-off coefficients for Typical Surface Types.*



- Consider Rainwater Harvesting Guidelines from National Building Code (NBC) of India, Part 11 - Approach to Sustainability (as and when available), Section 7.2 - Rainwater Harvesting - Surface runoff.
- In areas where the water percolation is limited, collection tanks / water bodies may be provided to meet the above requirement.
- Projects which do not have data on the number of rainy days, a maximum of 15 rainy days can be considered to arrive at normal rainfall.
- Filtering of suspended solids shall be ensured by providing suitable filtering media before letting the water into the collection tanks, water bodies and municipal storm water drains.
- Rainwater can be harvested to the extent of 55,000 liters per 100sq. meters area per year from rooftops.

#### Run-off coefficients for Typical Surface Types

Surface Type	Run-off Coefficient
Cemented / Tiled Roof	0.95
Roof Garden (<100 mm thickness)	0.5
Roof Garden (100 – 200 mm thickness)	0.3
Roof Garden (201 – 500 mm thickness)	0.2
Roof Garden (> 500 mm thickness)	0.1
Turf, Flat (0 - 1% slope)	0.25
Turf, Average (1 - 3% slope)	0.35
Turf, Hilly (3 - 10% slope)	0.4
Turf, Steep (> 10% slope)	0.45
Vegetation, Flat (0 - 1% slope)	0.1
Vegetation, Average (1 - 3% slope)	0.2
Vegetation, Hilly (1 - 3% slope)	0.25
Vegetation, Steep (> 10% slope)	0.3
Concrete Pavement	0.95
Gravel Pavement	0.75
Open-grid Concrete Pavement	0.75
Open-grid Grass Pavement	0.5
Water Bodies (lined) Ex: Swimming Pools	0.95
Water Bodies (un-lined) Ex: Water Pond	0



## **Documentation Required:**

### **Precertification**

#### **Option 1: Rainwater Harvesting**

- i. Narrative describing the strategies proposed to capture/ harvest rain water from roof & non-roof areas
- ii. Tentative calculations indicating the run-off volume captured/ harvested from roof and non-roof and the volume of rainwater harvesting pits/tanks.
- iii. Conceptual external storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings
- iv. Hydrogeological test report (approved by third-party) indicating the percolation capacity of the soil/ Project specific borewell test report indicating the percolation rate.

#### **Option 2: High Groundwater Table**

- i. Hydrology report (approved by third-party) indicating the level of water table, at different locations within the project site

### **Certification**

#### **Option 1: Rainwater Harvesting**

- i. Narrative describing the strategies implemented to capture/ harvest rain water from roof & non-roof areas
- ii. Calculations indicating the run-off volume captured/ harvested from roof and non-roof and the volume of rainwater harvesting pits/tanks.
- iii. External storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings of rain water harvesting systems
- iv. Hydrogeological test report (approved by third-party) indicating the percolation capacity of the soil/ Project specific borewell test report indicating the percolation rate
- v. Photographs of rain water harvesting systems, taken during and after construction

#### **Option 2: High Groundwater Table**

- i. Hydrology report (approved by third-party) indicating the level of water table, at different locations within the project site



## Water Efficiency

### WC Mandatory Requirement 2

#### Intent:

To optimize and benchmark water consumption per occupied room through efficient fixtures and effective water management practices.

#### Compliance Options:

##### ❖ Option 1: Water Efficient Plumbing Fixtures:

Use Water efficient plumbing fixtures with flow rates to meet the baseline criteria individually or in aggregate. The total annual water consumption of the facility should not exceed the total base case water consumption.

The baseline criteria is as below:

Fixture type	Maximum Flow Rate/ Consumption	Duration	Estimated Daily Uses per FTE
Water Closet (Full Flush)	≤6.0 lpf	1 flush	1
Water Closet (Half Flush)	≤3.0 lpf	1 flush	1
Urinal*	≤3.0 lpf	1 flush	2 for male
Health faucet*	≤6.0 lpm	15 seconds	1
Faucet*	≤8.0 lpm	15 seconds	8
Kitchen Sink*	≤8.0 lpm	15 seconds	4
Handheld Shower*	≤8.0 lpm	8 minutes	1
Showerhead*	≤10.0 lpm	8 minutes	1

*\*Reporting pressure for these fixtures shall be at 4.1 bar*

#### **Notes:**

- Use of treated waste water / captured rain water shall not be considered to show potable water savings
- Water fixtures do not include irrigation systems.
- Faucets / Taps installed for hand wash in rest rooms and canteen shall be considered; whereas, faucets / taps installed for dish washing and washing clothes need not be considered.
- Rain showers (if any) need to be considered in the calculations under Showerhead.
- Full Time Equivalent (FTE) represents a regular building occupant who spends 8 hours per day in the building. Part-time or overtime occupants have FTE values based on their hours per day divided by 8.



- The baseline flows can be demonstrated at a flowing water pressure of 4.1 bar. Flowing water pressure of 4.1 bar does not mean that the water supply in the building is at 4.1 bar. The building fixtures can operate at lower pressures, however to show compliance under this credit, the design flow rates are to be submitted at 4.1 bar.
- In the absence of specific cutsheets use the following conversion formula to arrive at discharge at 4 bar pressure. The project team should submit the supplementary calculation to indicate the flowrates at 4 Bar pressure along with individual cutsheet of the water fixture. Project can use the following formula to calculate the approximate flowrates:  $Q2 = Q1 \sqrt{P2/P1}$  Where, Q1 & P1 are the known flow rate(Q1) and known pressure (P1). The resulting flow rate (Q2) is calculated for the pressure applied (P2).
- Default occupancy shall be considered as 50% for male and 50% female..
- FTE occupancy shall be considered in calculation, including visitors.
- In case the plumbing fixtures provided in the guest rooms is differing from the common areas, separate calculations shall be submitted to demonstrate compliance
- Plumbing fixtures that are certified by CII under Green Product Certification Programme (GreenPro) or by a third party agency approved by IGBC can be used by the project to show compliance.

(OR)

❖ **Option 2: Water Use Intensity**

(Applicable only for Existing Hotels)

Projects shall calculate and demonstrate the Water Use Intensity (WUI) on per room night basis as follows:

$$\text{WUI (litres/room night)} = \frac{\text{Annual Water Consumption (litres)}}{\text{Annual Room Nights}}$$

Annual Room Nights = Total rooms occupied in a year

Demonstrate that the annual water consumption (WUI) per occupied room falls within the benchmark range as per the following table:

Star classification of the hotel	WUI (Liters/room night)
5 star	< 1200
4 star	< 1000
3 star	< 800
Below 3 star	< 600

**Notes:**

- *Total Annual Water Consumption includes water from all sources (potable, recycled, and alternate sources) used within the facility.*

**Documentation Required:****Precertification****Option 1: Water Efficient Plumbing Fixtures:**

- List of plumbing fixtures (flow and flush) proposed in public spaces( Lobby, Restaurant and other facilities)private spaces(guest rooms), with respective make & model and flow rates.
- Tentative FTE occupancy calculations for the staff and guests.
- Manufacturer cut-sheets/ brochures/ letters indicating the flow rates of the plumbing fixtures (flow and flush) at 4.1 bar flowing water pressure.
- Tentative calculation indicating the water savings over baseline.

**Certification****Option 1: Water Efficient Plumbing Fixtures:**

- List of plumbing fixtures (flow and flush) installed in public spaces( Lobby, Restaurant and other facilities)private spaces(guest rooms), with respective make & model and flow rates.
- FTE occupancy calculations for the staff and guests.
- Manufacturer cut-sheets/ brochures/ letters indicating the flow rates of the plumbing fixtures (flow and flush) at 4.1 bar flowing water pressure.
- Calculation indicating the water savings over baseline.
- Purchase invoice of plumbing fixtures (flow and flush) with make & model.
- Photographs of plumbing fixtures installed in the private and public spaces of the hotel.

**Option 2: Water Use Intensity**

- Narrative describing the annual water consumption of the hotel, including the sources of water used within the facility.
- Annual room-night occupancy details indicating total rooms occupied per month.
- Calculations indicating Water Use Intensity (WUI) in litres/room night.

**Enhanced Rainwater Harvesting****New Hotel****Existing Hotel****WC Credit 1****Credit Points: 3****Intent:**

Enhance ground water table and reduce municipal water demand through effective rainwater management.

**Compliance Options:**❖ **Case A: Rainwater Harvesting**

Design rainwater harvesting system to capture/ percolate at least 'one-day rainfall\*' runoff volume from roof and non-roof areas.

**(OR)**❖ **Case B: High Groundwater Table**

Design rainwater harvesting system to capture/ percolate at least 'one-day rainfall\*' runoff volume from roof areas.

**Criteria to arrive at 'One-day Rainfall' for Case A & B**

Average Peak Month Rainfall (mm)	One-day Rainfall (% of Average Peak Month Rainfall)		
	1 Credit Point	2 Credit Points	3 Credit Points
Upto 250	12%	15%	18%
251 – 350	10%	12.5%	15%
351 – 500	8%	10%	12%
501 – 700	6%	7.5%	9%
701 & above	4%	5%	6%

**Notes:**

- One-day rainfall can be derived from 'percentage of average peak month rainfall' given in table.
- To arrive at average peak month rainfall, consider an average of at least last 5 years peak month rainfall (of the respective year).
- For rainfall information, refer Indian Meteorological Department data refer Indian Metrological Department data → Customized Rainfall Information System (CRIS) → Rainfall Statistics → District Wise Rainfall Last 5 years

[http://hydro.imd.gov.in/hydrometweb/\(S\(vcenta45dxa4dpbpffd3ud3g\)\)/DistrictRaifall.aspx](http://hydro.imd.gov.in/hydrometweb/(S(vcenta45dxa4dpbpffd3ud3g))/DistrictRaifall.aspx)



- *Runoff volume = Surface area x Runoff Coefficient x Rainfall.*
- *For run-off coefficients for typical surface types, refer Table 3 - Run-off coefficients for Typical Surface Types in.*
- *Consider Rainwater Harvesting Guidelines (as and when available) from the National Building Code (NBC) of India, Part 11 - Approach to Sustainability, Section 7.2 - Rainwater Harvesting- Surface Runoff.*
- *In areas where the water percolation is limited, collection tanks may be provided to meet the above requirement.*
- *Filtering of suspended solids shall be ensured by providing suitable filtering media before letting the water into the collection tanks, water bodies and municipal storm water drains.*

### Exemplary Performance:

The project is eligible for exemplary performance under INN - Innovation and Exemplary Performance, if rainwater runoff from Roof & Non roof areas under Case A and from Roof areas under Case B is harvested, as listed below:

#### Criteria to arrive at 'One-day Rainfall' for Exemplary Performance

Average Peak Month Rainfall (mm)	One-day Rainfall (% of Average Peak Month Rainfall)
Upto 250	21%
251 – 350	17.5%
351 – 500	14%
501 – 700	10.5%
700 & above	7%

### Documentation Required:

#### Precertification

#### Option 1: Rainwater Harvesting

- Narrative describing the strategies proposed to capture/ harvest rain water from roof & non-roof areas
- Tentative calculations indicating the run-off volume captured/ harvested from roof and non-roof and the volume of rainwater harvesting pits/tanks.
- Conceptual external storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings
- Hydrogeological test report (approved by third-party) indicating the percolation capacity of the soil/ Project specific borewell test report indicating the percolation rate.





**Option 2: High Groundwater Table**

- i. Narrative describing the strategies proposed to capture/ harvest rain water from roof areas
- ii. Tentative calculations indicating the run-off volume captured/ harvested from roof and the volume of rainwater harvesting pits/tanks.
- iii. Conceptual external storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings
- iv. Hydrogeological test report (approved by third-party) indicating the percolation capacity of the soil/ Project specific borewell test report indicating the percolation rate.

**Certification**

**Option 1: Rainwater Harvesting**

- i. Narrative describing the strategies implemented to capture/ harvest rain water from roof & non-roof areas
- ii. Calculations indicating the run-off volume captured/ harvested from roof and non-roof and the volume of rainwater harvesting pits/tanks.
- iii. External storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings of rain water harvesting systems
- iv. Hydrogeological test report (approved by third-party) indicating the percolation capacity of the soil/ Project specific borewell test report indicating the percolation rate
- v. Photographs of rain water harvesting systems, taken during and after construction

**Option 2: High Groundwater Table**

- i. Narrative describing the strategies proposed to capture/ harvest rain water from roof areas
- ii. Tentative calculations indicating the run-off volume captured/ harvested from roof and the volume of rainwater harvesting pits/tanks.
- iii. Conceptual external storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings
- iv. Hydrogeological test report (approved by third-party) indicating the percolation capacity of the soil/ Project specific borewell test report indicating the percolation rate.



## Enhanced Water Efficiency

**New Hotel**
**Existing Hotel**

### WC Credit 2

**Credit Points: 4**

#### Intent:

Enhance plumbing fixture efficiency and optimize water performance by reducing potable water use and benchmarking consumption per occupied room.

#### Compliance Option:

##### ❖ Option 1: Water Efficient Plumbing Fixtures

**Credit Points: 4**

Use water efficient plumbing fixtures with individual flow and flush rates as indicated in the table below and demonstrate 5% of potable water savings over baseline, individually or in aggregate.

The baseline criteria is as below:

Fixture type	Maximum Flow Rate/ Consumption	Duration	Estimated Daily Uses per FTE
Water Closet (Full Flush)	≤6.0 lpf	1 flush	1
Water Closet (Half Flush)	≤3.0 lpf	1 flush	1
Urinal*	≤3.0 lpf	1 flush	2 for male
Health faucet*	≤6.0 lpm	15 seconds	1
Faucet*	≤8.0 lpm	15 seconds	8
Kitchen Sink*	≤8.0 lpm	15 seconds	4
Handheld Shower*	≤8.0 lpm	8 minutes	1
Showerhead*	≤10.0 lpm	8 minutes	1

*\*Reporting pressure for these fixtures shall be at 4.1 bar*

Points are awarded as below:

% Potable Water Savings over baseline	Credit Points
>5%	1
>10%	2
>15%	3
>20%	4

**Notes:**

- *Use of treated waste water / captured rain water shall not be considered to show potable water savings*
- *Water fixtures do not include irrigation systems.*
- *Faucets / Taps installed for hand wash in rest rooms and canteen shall be considered; whereas, faucets / taps installed for dish washing and washing clothes need not be considered.*
- *Rain showers (if any) need to be considered in the calculations under Showerhead.*
- *Full Time Equivalent (FTE) represents a regular building occupant who spends 8 hours per day in the building. Part-time or overtime occupants have FTE values based on their hours per day divided by 8.*
- *The baseline flows can be demonstrated at a flowing water pressure of 4.1 bar. Flowing water pressure of 4.1bar does not mean that the water supply in the building is at 4.1 bar. The building fixtures can operate at lower pressures, however to show compliance under this credit, the design flow rates are to be submitted at 4.1 bar.*
- *In the absence of specific cutsheets use the following conversion formula to arrive at discharge at 4 bar pressure. The project team should submit the supplementary calculation to indicate the flowrates at 4 Bar pressure along with individual cutsheet of the water fixture. Project can use the following formula to calculate the approximate flowrates:  $Q_2 = Q_1 \sqrt{P_2/P_1}$  Where,  $Q_1$  &  $P_1$  are the known flow rate( $Q_1$ ) and known pressure ( $P_1$ ). The resulting flow rate ( $Q_2$ ) is calculated for the pressure applied ( $P_2$ ).*
- *Default occupancy shall be considered as 50% for male and 50% female..*
- *In case the plumbing fixtures provided in the guest rooms is differing from the common areas, separate calculations shall be submitted to demonstrate compliance*

**(OR)****❖ Option 1: Water Use Intensity:****Credit Points: 4***(Applicable only for Existing**Hotels)*

Projects shall calculate and demonstrate the Water Use Intensity (WUI) on a per room night basis as follows:

$$\text{WUI (litres/room night)} = \frac{\text{Annual Water Consumption (litres)}}{\text{Annual Room Nights}}$$

Annual Room Nights = Total rooms occupied in a year



Demonstrate that the annual water consumption per occupied room meets as per the table below:

Star classification of Hotel	WUI (Liters/room night)
5 star	< 1200
4 star	< 1000
3 star	< 800
Below 3 star	< 600

Points are awarded as below:

Percentage savings over WUI (Litres/room night)	Points
5%	1
10%	2
15 %	3
20 %	4

**Notes:**

- *Total Annual Water Consumption includes water from all sources (potable, recycled, and alternate sources) used within the facility.*
- *The project team shall consider recent 12 months data to calculate the WUI*

**Exemplary Performance:**

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if 25% of savings are achieved from baseline or WUI.

**Documentation Required:**

**Precertification**

**Option 1: Water Efficient Plumbing Fixtures:**

- List of plumbing fixtures (flow and flush) proposed in public spaces (Lobby, Restaurant and other facilities) private spaces (guest rooms), with respective make & model and flow rates.
- Tentative FTE occupancy calculations for the staff and guests.
- Manufacturer cut-sheets/ brochures/ letters indicating the flow rates of the plumbing fixtures (flow and flush) at 4.1 bar flowing water pressure.
- Tentative calculation indicating the water savings over baseline.



### **Certification**

#### **Option 1: Water Efficient Plumbing Fixtures:**

- i. List of plumbing fixtures (flow and flush) installed in each building in the campus, with respective make & model and flow rates.
- ii. FTE occupancy calculations for the staff and guests.
- iii. Manufacturer cut-sheets/ brochures/ letters indicating the flow rates of the plumbing fixtures (flow and flush) at 4.1 bar flowing water pressure.
- iv. Calculation indicating the water savings over baseline.
- v. Purchase invoice of plumbing fixtures (flow and flush) with make & model.
- vi. Photographs of plumbing fixtures installed in the private and public spaces of the hotel.

#### **Option 2: Water Use Intensity**

- i. Narrative describing the annual water consumption of the hotel, including the sources of water used within the facility.
- ii. Water consumption data of at least 12 months.
- iii. Annual room-night occupancy details indicating total rooms occupied per month.
- iv. Calculations indicating the percentage savings over the Water Use Intensity (WUI) baseline in litres/room night.



## Water Efficient Dishwashing Systems

**New Hotel**
**Existing Hotel**

### WC Credit 3

**Credit Points: 2**

#### Intent:

To minimize potable water consumption in kitchen operations by using high-efficiency dishwashing systems and practices that achieve effective cleaning with reduced water use per cycle.

#### Compliance Options:

##### ❖ Option 1: Efficient Dishwasher

**Credit Point: 1**

Projects shall demonstrate the adoption of water-efficient dishwashing systems as per the table below:

Type of Dishwasher	Threshold value	Credit Points
Undercounter	$\leq 3.2$ L/rack	1
Hood type	$\leq 3.3$ L/rack	
Conveyor	$\leq 2.6$ L/rack	

(AND/OR)

##### ❖ Option 2: Efficient Pot and Pan washer

**Credit Point: 1**

Projects shall demonstrate the adoption of water-efficient pot and pan washer as per the table below:

Type of Dishwasher	Threshold value	Credit Points
Pot Washer	$\leq 2.6$ L/ rack area (sq ft)	1

#### Note:

- *Rack area\*- For Pot and Pan Utensil Washer, the rack area is defined based on the height and width (diameter) of the washer.*

#### Exemplary Performance:

This credit is not eligible for exemplary performance.



## **Documentation Required:**

### **Precertification**

- i. Narrative describing the type of dishwashing systems proposed (undercounter, hood type, conveyor, pot washer), along with the list of the systems proposed in the hotel.
- ii. Manufacturer cut-sheets / brochures / technical data sheets of the systems proposed in the hotel indicating the water consumption (L/rack or L/sq.ft of rack area), wash cycle details, and test conditions.

### **Certification**

- i. Narrative describing the type of dishwashing systems installed (undercounter, hood type, conveyor, pot washer), along with the list of the systems provided in the hotel.
- ii. Manufacturer cut-sheets / brochures / technical data sheets indicating the water consumption (L/rack or L/sq.ft of rack area), wash cycle details, and test conditions.
- iii. Photographs of dishwashers and pot/pan washers installed in the kitchen areas.
- iv. Purchase invoices indicating make and model of the installed dishwashing systems, wherever applicable.



## Water Efficient Laundry Systems

New Hotel	Existing Hotel
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**WC Credit 4**

**Credit Points: 2**

### Intent:

To promote the use of high efficiency washing systems thereby minimizing the potable water consumption in laundry operations.

### Compliance Options:

#### ❖ Option 1: Laundry Washer

**Credit Point:1**

Demonstrate that the water consumption of the installed laundry system is as below:

$$\frac{\text{Water Consumption Per Cycle (litres)}}{\text{Washer Capacity (m}^3\text{)}} \leq 534.6 \text{ L/cycle/m}^3$$

(OR)

#### ❖ Option 2: Laundry Water Performance

**Credit Point:1**

*(Applicable only for Existing Hotels)*

Demonstrate that the annual water consumption of the in-house laundry facility is ≤ 13.5 litres/kg of laundry processed.

$$\text{Laundry Water Performance} = \frac{\text{Annual water consumption from all the Laundry System (litres)}}{\text{Annual Laundry Load (kg)}}$$

### Notes:

- For the water consumption calculations, all the laundry systems such as Washer Extractor, Hydro Washer, Tumble Dryer, Flat Ironing/ Calender Machine, Steam Press/ Form Finisher, Water softener, Equipment for Dry Cleaning, Boiler/Hot water generator etc.,

(AND/OR)

#### ❖ Option 3: Laundry Water Recycling

**Credit Point: 1**

Demonstrate that the laundry system reuses treated rinse water for pre-wash cycles, thereby reducing overall potable water demand.

### Exemplary Performance:

This credit is not eligible for exemplary performance.





## **Documentation Required:**

### **Precertification**

#### **Option 1: Laundry Washer**

- i. Narrative describing the laundry facility operations, type and list of equipment proposed along with the list of laundry washer proposed in the hotel.
- ii. Tentative calculations indicating the water consumption of the proposed laundry washer (Litre/cycle/m<sup>3</sup>).
- iii. Manufacturer cut-sheets / brochures / technical data sheets indicating the water consumption details (L/cycle), wash cycle details, and capacity.

#### **Option 3: Laundry Water Recycling**

- i. Narrative describing the laundry facility operations and the water recycling process.
- ii. Single line drawing of the water recycling tank
- iii. Manufacturer cut-sheets / brochures / technical data sheets indicating the data regarding water recycling for pre-wash cycles.

### **Certification**

#### **Option 1: Laundry Washer**

- i. Narrative describing the laundry facility operations, type and list of equipment proposed along with the list of laundry washer proposed in the hotel
- ii. Calculations indicating the water consumption of the installed laundry washer.
- iii. Purchase invoice showing make and model of installed laundry washer, wherever applicable.
- iv. Photographs of laundry washer.

#### **Option 2: Laundry Water Performance**

- i. Narrative describing the laundry facility operations, type and list of equipment proposed along with the list of laundry systems proposed in the hotel.
- ii. Calculations indicating the annual water consumption of the installed laundry systems (Litre/cycle/m<sup>3</sup>).
- iii. Water consumption data of laundry for at least 12 months.
- iv. Photographs of laundry equipment installed at site, covering washer extractors, hydro washers, ironing units, and water reuse systems.

#### **Option 3: Laundry Water Recycling**

- i. Narrative describing the laundry facility operations and the water recycling process.
- ii. Single line drawing of the water recycling tank
- iii. Manufacturer cut-sheets / brochures / technical data sheets indicating the data regarding water recycling for pre-wash cycles.



## Irrigation Management

New Hotel

Existing Hotel

**WC Credit 5**

**Credit Point: 1**

### Intent:

Reduce water demand for irrigation through water efficient management systems and techniques.

### Compliance Options:

Demonstrate at least 15% water savings as compared to base case due to efficient landscape design and irrigation systems (Sprinkler, Drip, Segregation of bedding areas, Soil moisture sensor, timers), as compared to base design.

### Methodology to calculate water consumption for irrigation:

$$\text{Water Consumption for irrigation} = \frac{(\text{Monthly Evapotranspiration Rate} \times \text{Landscape Area} \times \text{Plant Factor})}{\text{Irrigation System Efficiency}}$$

The design case water requirement shall be demonstrated through the consumption quantity of non-potable water for irrigation and by indicating the percentage savings achieved over the baseline potable water requirement.

Kindly refer to the table below for the Plant factor and Irrigation System Efficiency:

Plant Species	Plant Factor
Lawns(On ground /podium)	0.85
Native/ Naturalized shrubs (On ground/podium)	0.5
Exotic shrubs (newly planted)	0.7
Native Trees on Ground	0.5
Fully grown Existing Trees (native)	0.2
Native Trees on Podium	1.2
Exotic Trees on Podium	1.3



Irrigation Systems	Irrigation System Efficiency
Flood Irrigation (To be considered for base case)	0.65
Drip Irrigation	0.9
Sprinkler	0.85

Source: Ministry of Water Resources Central Water Commission

**Notes:**

- Design case water requirement must be considered as per the water requirement for the landscape species and irrigation system designed in the project.
- Refer to the link for evapotranspiration rates: <https://indiawris.gov.in/wris/#/evapotranspiration>
- The evapotranspiration rate is the amount of water lost from a unit area of land to the atmosphere per unit time due to the combined effects of evaporation and plant transpiration. It is usually expressed in millimetres per day (mm/day) or millimetres per year (mm/year).
- Irrigation System Efficiency is a coefficient used in irrigation planning to account for the portion of crop water requirements that needs to be supplied through irrigation, considering contributions from rainfall, soil moisture, and other water sources.
- Plant Factor (also called Crop Coefficient) is a dimensionless number that represents the water requirement of a specific crop or plant relative to a reference crop.
- To calculate the base case water consumption, the project team must consider the irrigation system efficiency as flood irrigation for all types of species.
- For projects where irrigation systems other than that mentioned in Table are used in the project, then the project team can define the system irrigation efficiency based on relevant source and demonstrate % reduction in irrigation efficiency.

**Exemplary Performance:**

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if the project team demonstrates potable water savings of more than 25% due to efficient landscape design and irrigation systems.

**Documentation Required:****Precertification**

- i. Narrative describing the water efficient irrigation systems and techniques proposed in the project.
- ii. Tentative calculation indicating the baseline irrigation water consumption and the design case non-potable water requirement, along with the percentage savings achieved.
- iii. Conceptual landscape plan layout indicating landscape areas, planting zones, and location of irrigation systems (sprinklers, drip lines, soil moisture sensors, timers, etc.).(Optional)



- iv. Manufacturer cut-sheets/ brochures of the proposed water efficient irrigation systems and techniques. (Optional)

### **Certification**

- i. Narrative describing the landscape design approach, type of planting zones, and irrigation strategy adopted for the project.
- ii. Calculation indicating the baseline irrigation water consumption and the design case non-potable water requirement, along with the percentage savings achieved.
- iii. Site plan / layout indicating landscape areas, planting zones, and location of irrigation systems (sprinklers, drip lines, soil moisture sensors, timers, etc.).
- iv. Manufacturer cut-sheets / brochures of irrigation components (sprinklers, drip emitters, controllers, sensors), wherever applicable.
- v. Photographs of installed irrigation systems and controls at site.

**Waste Water Treatment****New Hotel****Existing Hotel****WC Credit 6****Credit Points: 1****Intent:**

Treat wastewater generated on-site, so as to avoid polluting the receiving streams by safe disposal. Use treated wastewater, thereby reducing dependency on potable water.

**Compliance Options:****❖ Waste Water Treatment:**

Have an on-site treatment system to handle 100% of waste water generated in the hotels to the quality standards suitable for reuse, as prescribed by Central (or) State Pollution Control Board, as applicable.

**Notes:**

- Waste water here refers to grey and black water.
- The credit point(s) can be claimed only if the waste water is treated in-situ and reused in-situ. In case the local authorities insist the project to divert waste water to a centralized /common waste water treatment plant outside the hotel, then the project can show compliance under WC Cr 7 by reusing treated wastewater from the centralized / common / any other waste water treatment plant.

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification:**

- i. Narrative describing the on-site waste water treatment system proposed in the project
- ii. Tentative daily and annual water balance of the project
- iii. Site plan highlighting the location of on-site waste water treatment system, proposed in the project.

**Certification:**

- i. Narrative describing the installed on-site waste water treatment system, along with the capacity & efficiency of treatment plant
- ii. Daily and annual water balance of the project
- iii. Site plan highlighting the location of installed on-site waste water treatment system
- iv. Technical specifications and details of the wastewater treatment systems.
- v. Photographs showing the on-site waste water treatment system installed



## Alternative Water Performance

New Hotel	Existing Hotel
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### WC Credit 7

**Credit Points: 3**

#### Intent:

Use alternate water, thereby reducing dependence on potable water.

#### Compliance Options:

Demonstrate alternate water use for at least 25% of the total water consumption in the project for various applications including domestic, irrigation, cooling tower & water cooled DG make-up water etc..

$$\% \text{ Use of Alternate Water (Water Performance Ratio)} = \frac{\text{Alternate Water Consumption}}{\text{Total Water Consumption}}$$

Percentage of Alternate water to the Total water consumption	Points
>20%	1
>35%	2
>50%	3

#### Exemplary Performance:

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if the water performance ratio for the project is  $\geq 65\%$ .

#### Documentation Required:

##### Precertification:

- Narrative describing the sources of alternate water proposed in the project (treated wastewater, rainwater, AC condensate, RO reject recovery, STP reuse, etc.) and the end-use applications.
- Tentative calculation indicating the percentage of alternative water proposed to be used to the total water consumption of the project.
- Tentative site layout indicating the alternate water distribution system (piping layout, storage tanks, reuse points).



**Certification:**

- i. Narrative describing the sources of alternate water used in the project (treated wastewater, rainwater, AC condensate, RO reject recovery, STP reuse, etc.) and the end-use applications.
- ii. Calculation indicating the percentage of alternative water used to the total water consumption of the project in the preceding 1 year.
- iii. Site layout showing the alternate water distribution system (piping layout, storage tanks, reuse points).
- iv. Photographs showing infrastructure for alternate water collection, treatment and reuse (STP, rainwater harvesting units, condensate recovery systems, treated water tanks, etc.).



## Water Metering and Management

New Hotel	Existing Hotel
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**WC Credit 8**
**Credit Points: 2,3**

### Intent:

Encourage sub-metering to improve water performance and thereby save potable water.

### Compliance Options:

#### ❖ Option 1: Water Monitoring

**Credit Point: 1**

Implement meter at water source along with sub-metering for at least three of the following water use applications, as applicable:

- Flushing
- Kitchen (food preparation & dishwashing)
- Laundry
- Treated water from STP
- Hot water
- RO water
- Cooling Tower
- Swimming Pool
- Spa & Sauna
- Irrigation
- Any other major source of water consumption

**(AND/OR)**

#### ❖ Option 2: Water Dashboard

**Credit Points: 1,2**

Integrate water meters with a centralized water management system to monitor and analyze water consumption, enabling continuous tracking of water performance and effective water management across the facility.

Points are awarded as below:

Type of Monitoring	New Hotels	Existing Hotels
Water Metering	1	1
Water Dashboard	1	2





### **Exemplary Performance:**

This credit is not eligible for exemplary performance.

### **Documentation Required:**

#### **Precertification**

##### **Option 1: Water Metering:**

- i. Narrative describing the list of water meters proposed in the project.
- ii. Schematic diagram showing the location of water meters, proposed in the project.
- iii. Manufacturer cut-sheets/ specifications of the water meters proposed in the project.

##### **Option 2: Water Dashboard**

- i. Narrative describing the real time water monitoring system proposed in the project.
- ii. Manufacturer cut-sheets/ specifications of the real time water monitoring system proposed in the project
- iii. Declaration letter confirming the provision of water dashboard and water meters for monitoring

#### **Certification:**

##### **Option 1: Water Metering:**

- i. Narrative describing the water meters, installed in the project.
- ii. Schematic diagram showing the location of water meters, installed in the project.
- iii. Water performance data for various water usage
- iv. Manufacturer cut-sheets/ brochures of the installed water meters
- v. Photographs of the installed water meters
- vi. Purchase invoice of the installed water meters

##### **Option 2: Water Dashboard**

- i. Narrative describing the real time water monitoring system installed in the project.
- ii. Water performance data for various water usage
- iii. Manufacturer cut-sheets/ brochures of the real time water monitoring dashboard.
- iv. Photographs of the installed water monitoring dashboard
- v. Purchase invoice of the installed water monitoring dashboard



ENERGY  
EFFICIENCY



## Eco Friendly Refrigerant

New Hotel	Existing Hotel
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### EE Mandatory Requirement 1

#### Intent:

Encourage use of ecofriendly refrigerants and fire suppression systems thereby minimizing the impact of global warming potential.

#### Compliance Options:

##### ❖ Eco-friendly Refrigerants

Use low GWP/ eco-friendly refrigerants in all HVACR equipment and system by following MoEFCC guidelines and regulation (Phase out & Phase down program)

(AND)

##### ❖ Fire Suppression Systems

Demonstrate that fire suppression systems used in the building are free from Halons or any other ozone depleting substances.

#### Notes:

- Any equipment or system which uses refrigerant shall be included in the calculation.
- In the existing building project wherein ODP based refrigerant/gases are still used, the complete phase-out plan shall be submitted for the next 3 years.
- Retrofitting/ Renovation/ new structural extension projects shall only use eco- friendly refrigerant/gas as per MoEFCC guidelines.

#### Documentation Required:

##### Precertification

- i. Demonstrate that the hotel has ecofriendly refrigerants and provide a comprehensive list of HVAC&R equipment proposed for the project along with the details of refrigerant charged.
- ii. Manufacturer cut sheets/ brochures to show the type of refrigerants proposed in the HVAC&R systems
- iii. Manufacturer cut sheets/ brochures to show the type of gases proposed in the fire suppression systems.

##### Certification:

- i. Demonstrate that the hotel has ecofriendly refrigerants and provide a comprehensive list of HVAC&R equipment installed in the project along with the details of refrigerant charged.
- ii. Manufacturer cut sheets/ brochures to show the type of refrigerants installed in the HVAC&R systems



- iii. Manufacturer cut sheets/ brochures to show the type of gases installed in the fire suppression systems.
- iv. Submit photographs of nameplates indicating the type of refrigerants installed in the HVAC&R systems.
- v. Purchase invoice of the HVAC&R systems installed.



## Minimum Energy Performance

New Hotel

Existing Hotel

### EE Mandatory Requirement 2

#### Intent:

Optimise energy consumption, to reduce negative environmental impacts from excessive energy use.

#### Compliance Options:

##### New Hotels:

##### ❖ Whole Building Simulation Approach

Demonstrate compliance of the building performance by whole building simulation, as per the baselines outlined in ECSBC 2024 (or) ASHRAE Standard 90.1-2022 (without amendments), Appendix - G.

#### Notes:

- *Projects that use solar hot water systems can model the systems in the proposed case, as against electrical heaters in the base case, to show energy savings.*
- *Projects which have process loads not related to building operations should be considered during simulation. While reporting, such loads can be excluded from the base case and proposed case annual energy consumption.*
- *The project team must model the proposed HVAC system in the design case during simulation.*
- *Projects that use on-site renewable energy sources (such as solar energy, wind power, biomass, etc..) can subtract renewable energy generated from the total annual energy consumption of the proposed case.*

##### Existing Hotels

##### ❖ Option 1 : Energy Performance Index (EPI):

Demonstrate that the annual energy consumption in the building is within the EPI (Energy Performance Index) limits as mentioned in the table below:

Star Classification	EPI
5 star	<250
4 star	<200
3 star	<150
Below 3 star	<120

**Notes:**

- *Energy Performance Index (EPI): Electricity purchased & generated divided by built up area in sqm.*
- *All sources of energy consumption, including electricity, diesel, and renewable energy shall be considered.*
- *Hotels which are not star classified shall demonstrate compliance as per the applicable star classification by the Ministry of Tourism.*

**(OR)****❖ Option 2 : Energy Use Intensity (EUI):**

Demonstrate the energy use intensity (EUI) on per guest night basis using the following equation:

$$\text{Energy Use Intensity (EUI)} = \frac{\text{Annual Energy Consumption (kWh)}}{\text{Annual Room Nights}}$$

**Annual Room Nights = Total rooms occupied in a year**

Star Classification	EUI (kWh/room night)
5 star	<120
4 star	<100
3 star	<80
Below 3 star	<60

Demonstrate that the annual energy consumption per occupied room is within the EUI (Energy Use Intensity) limits as mentioned in the table below:

**Notes:**

- *All sources of energy consumption, including electricity, diesel, and renewable energy shall be considered.*
- *Hotels which are not star classified shall demonstrate compliance as per the applicable star classification by the Ministry of Tourism*

**(OR)****❖ Option 3 : Calibrated Simulation**

Demonstrate energy compliance for building/ space through calibrated simulation following M&V Protocols such as IPMVP/FEMP/ASHRAE 14. Simulation model shall be calibrated based on whole building energy consumption and any major energy end use (chiller/ cooling energy consumption/ lighting/ ventilation/ etc.).

Project to develop As Is case and define baseline specifications/ parameters following ASHRAE 90.1 - 2022/ ECSBC 2024 to compare energy performance.



**Notes:**

- *Onsite Renewable Energy (RE) shall not be considered in energy saving calculation.*
- *Lighting Load shall be submitted separately for Interior and exterior lighting.*

**Documentation Required:**

**Precertification**

**Performance Based Approach (Whole Building Simulation):**

- i. Building simulation analysis with the following information, as applicable:  
*Note: The baselines should be as per Energy Conservation Sustainability Building Code 2024 (Or) ASHRAE Standard 90.1-2022 (without amendments), Appendix-G*
  - a) Narrative stating the climate zone and the list of Energy Conservation Measures (ECMs) proposed in the project.
  - b) Note: The list should include all ECMs that differ from the baseline building performance to proposed building performance.
  - c) Window-to-wall ratio (WWR) calculations for each building.
  - d) Comparison between the baseline building performance and the proposed building performance with percentage improvement.
  - e) The schedules for lighting power, thermostat set-point, HVAC system, miscellaneous equipment power, etc., for proposed building, as determined by the designer.
  - f) Input & output report(s) from the simulation program or compliance software including a breakdown of energy usage for the following components, but not limited to: interior lighting and exterior lighting, space cooling & heat rejection equipment, space heating equipment, fans, other HVAC equipment (such as pumps), internal and external equipment loads, etc., The output reports should also show the unmet hours by the HVAC system, for both the proposed design and baseline building design.
  - g) An explanation of any error messages noted in the simulation program output.
- ii. Details of the glazing proposed along with the list of identified manufacturers and respective specifications of glazing (SHGC value, U-value and VLT, as applicable).
- iii. Construction details and sectional drawings of the wall assembly proposed (including wall insulation material, etc.), along with the U-value of the overall wall assembly.
- iv. Construction details and sectional drawings of the roof assembly proposed (including roof insulation material, etc.), along with the U-value of the overall roof assembly.
- v. Details of the lighting fixture and controls proposed.
  - a) Conceptual interior and exterior lighting layout. (Optional)
  - b) LPD calculations, as per 'Building Area Method' or 'Space-by-Space method / Space function method'



- c) Declaration letter signed by the project owner/ lighting consultant indicating the proposed LPD.
- vi. Details of the air-conditioning system proposed indicating the COP/ EER values.
- vii. Details of the space heating system proposed indicating the COP/ EER values.
- viii. Details of solar water heating system such as calculations, plans showing location of solar water heating system.
- ix. Manufacturer brochures/ cut-sheets/ letters indicating the efficiency parameters for glazing (SHGC value, U-value and VLT), wall and roof insulation materials, lighting fixtures & systems, air-conditioning system and space heating system, solar water heating system, as applicable.

### **Certification:**

#### **New Hotels**

#### **Performance Based Approach (Whole Building Simulation):**

- i. Building simulation analysis with the following information, as applicable:  
The baselines should be as *Energy Conservation Sustainability Building Code 2024 (Or ASHRAE Standard 90.1-2022 (without amendments), Appendix-G*
  - a) Narrative stating the climate zone and the list of Energy Conservation Measures (ECMs) implemented in the project.
  - b) Note: The list should include all ECMs that differ from the baseline building performance to proposed building performance.
  - c) Window-to-wall ratio (WWR) calculations for each building.
  - d) Comparison between the baseline building performance and the proposed building performance with percentage improvement.
  - e) The schedules for lighting power, thermostat set-point, HVAC system, miscellaneous equipment power, etc., for the proposed building, as determined by the designer.
  - f) Input and output report(s) from the simulation program or compliance software including a breakdown of energy usage for the following components, but not limited to: interior lighting and exterior lighting, space cooling & heat rejection equipment, space heating equipment, fans, other HVAC equipment (such as pumps), internal and external equipment loads, etc., The output reports should also show the unmet hours by the HVAC system, for both the proposed design and baseline building design.
  - g) An explanation of any error messages noted in the simulation program output.
- ii. Details of the glazing along with the specifications (SHGC value, U-value and VLT).
- iii. Construction details and sectional drawings of the wall assembly (including wall insulation material, etc.), along with the U-value of the overall wall assembly.
- iv. Construction details and sectional drawings of the roof assembly (including roof insulation material, etc.), along with the U-value of the overall roof assembly.





- v. Details of the lighting systems and controls including the list of interior and exterior lighting fixtures, with make and model.
  - a) LPD calculations, as per 'Building Area Method' or 'Space-by-Space method / Space function method'.
  - b) Interior and exterior lighting layout.
- vi. Details of the air-conditioning system indicating the COP/ EER values, along with make and model.
- vii. Details of the space heating system indicating the COP/ EER values, along with make and model.
- viii. Details of solar water heating system such as calculations, plans showing location of solar water heating system.
- ix. Other Energy Conservation Measures (ECMs) details.
- x. Manufacturer brochures/ cut-sheets/ letters indicating the efficiency parameters for glazing (SHGC value, U-value and VLT), wall and roof insulation materials, lighting fixtures & systems, air-conditioning system and space heating system, solar water heating system, as applicable.
- xi. Purchase invoices of energy conservation measures implemented in the project such as glass, wall and roof insulation, lighting systems, chillers, heat recovery wheel, solar hot water system, etc., as applicable.

### **Existing Hotels**

#### **Option 1- EPI**

- i. Narrative describing the annual energy consumption of the hotel, including all energy sources used within the facility (electricity, diesel, solar, etc.).
- ii. Electricity bills of the preceding 1 year.
- iii. Calculations indicating the percentage savings of EPI over baseline.

#### **Option 2 - EUJ**

- i. Narrative describing the annual energy consumption of the hotel, including all energy sources used within the facility (electricity, diesel, solar, etc.).
- ii. Annual room-night occupancy details indicating total rooms occupied per month.
- iii. Calculations indicating the percentage savings of EUJ over baseline.

#### **Option 3 – Calibrated Simulation**

- i. Submit Energy Performance Index (EPI) calculation along with monthly energy consumption for last 3 years (whole building and major energy end use) in the prescribed format.
- ii. Submit project area details clearly indicating total built up area, total conditioned area, unconditioned area, and basement area.



- iii. Energy Simulation Report along with specifications of 'as is' case and baseline (building envelope, interior & exterior lighting, HVAC, equipment, actual schedules). Report shall include error limits such as MBE and CvRMSE and at least 5 recommendations proposed/ implemented for energy conservation on monthly basis.
- iv. Calculations indicating the percentage savings of EPI over baseline.



## Commissioning Plan for Building Equipment & Systems

**New Hotel****Existing Hotel**

### EE Mandatory Requirement 3

**Intent:**

Verify and ensure that the buildings equipment & systems are commissioned to achieve performance as envisaged during the design stage.

**Compliance Options:**

The project shall comply with the following requirements:

- ❖ Demonstrate that the project owner has signed an agreement with third party commissioning authority, not involved in the design. The commissioning authority is also required to have at least 3 years prior experience in equipment & systems.
- ❖ Document owners brief in terms of performance expectations from the building.
- ❖ Submit a plan to show how the building would be audited for its green building performance after occupancy, with regard to the following:
  - HVAC systems - chiller, VRV systems, primary & secondary water pumps, cooling tower, AHU fans, fresh air fans and flow settings, fresh air treatment units, heat recovery wheel, VFDs
  - Unitary air-conditioners
  - Temperature and RH measurements in individual spaces
  - Pumps & motors
  - Lighting systems
  - Renewable energy system
  - CO2 monitoring system
  - Energy & Water metering
  - Building management system
  - DG sets or Back-up systems
  - Sewage treatment plant
  - Any other equipment and systems
- ❖ Report specific observations and variations identified by commissioning authority to the project owner, for each equipment & system, with respect to commissioning plan and how they were addressed.
- ❖ Submit measurement & verification plan for yearly reporting.



- ❖ Submit post-occupancy survey to verify occupant comfort (lighting levels, temperature, relative humidity, noise levels, etc.,).
- ❖ Report on green building performance of the equipment & systems listed in commissioning plan. The report for each of the equipment & systems should cover the following:
  - Equipment specifications
  - Test results with specific comments from the Commissioning Authority, at the time of commissioning
  - Key monitoring aspects to sustain performance
  - Estimated energy & water consumption
  - Scope for performance enhancing in future, and savings thereof.

### **Documentation Required:**

#### **Precertification:**

- i. Copy of an agreement signed between the owner and the third party commissioning authority.
- ii. Narrative describing the experience of the commissioning authority, on similar projects.
- iii. Owners brief in terms of performance expectations from the building.
- iv. Commissioning plan describing how the building would be audited for its green building performance after occupancy, with regard to the equipment and systems.
- v. Measurement & verification plan for yearly reporting.
- vi. Post-occupancy survey to verify occupants comfort (lighting levels, temperature, relative humidity, noise levels, etc.,).

#### **Certification:**

- i. Copy of an agreement signed between the owner and the third party commissioning authority.
- ii. Narrative describing the experience of commissioning authority, on similar projects.
- iii. Owners brief in terms of performance expectations from the building.
- iv. Commissioning plan describing how the building would be audited for its green building performance after occupancy, with regard to the equipment and systems.
- v. Report specific observations and variations identified by commissioning authority to the project owner, for each equipment and system with respect to commissioning plan and how they were addressed.
- vi. Measurement & verification plan for yearly reporting.
- vii. Post-occupancy survey to verify occupants comfort (lighting levels, temperature, relative humidity, noise levels, etc.,).
- viii. Report on green building performance of the equipment & systems listed in commissioning plan.

**Enhanced Eco Friendly Refrigerant****New Hotel****Existing Hotel****EE Credit 1****Credit Points: 1,2****Intent:**

Encourage use of refrigerant/substances which are eco-friendly and have significantly lower global warming impact.

**Compliance Options:****❖ Eco- friendly Refrigerants**

Use eco-friendly refrigerants or refrigerants with less than 2100 GWP in all HVACR equipment and system by following MoEFCC guidelines and regulation (Phase out & Phase down program)

**(AND)**

**❖ Fire Suppression Systems**

Demonstrate that fire suppression systems used in the building are free from Halons or any other ozone depleting substances.

Points are awarded as below:

Global Warming Potential	New Hotels (Credit Points)	Existing Hotels (Credit Points)
<2100	1	2

**Notes:**

- Any equipment or system which uses refrigerant shall be included in the calculation.
- In the existing building project wherein ODP based refrigerant/gases are still used, the complete phase-out plan shall be submitted for the next 3 years.
- Retrofitting/ Renovation/ new structural extension projects shall only use eco- friendly refrigerant/gas as per MoEFCC guidelines

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification**

- i. Demonstrate that the refrigerants with GWP less than 2100 and provide a comprehensive list of HVAC&R equipment proposed to be installed in the project along with the details of refrigerant charged.
- ii. Manufacturer cut sheet indicating the type of refrigerants proposed in the HVAC&R systems and to show the type of gases proposed in the fire suppression systems.

**Certification:**

- i. Demonstrate that the hotel has refrigerants with GWP less than 2100 and provide a comprehensive list of HVAC&R equipment installed in the project along with the details of refrigerant charged
- ii. Manufacturer cut sheet indicating the type of refrigerants installed in the HVAC systems and to show the type of gases installed in the fire suppression systems.
- iii. Nameplate Photographs of the equipment indicating the refrigerant type
- iv. Purchase invoice of the HVAC&R system

**Enhanced Energy Performance****New Hotel****Existing Hotel****EE Credit 2****Credit Points: 8****Intent:**

To achieve enhanced energy performance through optimization of system efficiency and operational practices.

**Compliance Options:****New Hotels:****❖ Whole Building Simulation Approach:**

Demonstrate compliance of the building performance by whole building simulation, as per the baselines outlined in ECSBC 2024 (or) ASHRAE Standard 90.1-2022 (without amendments), Appendix - G.

Points are awarded based on energy percentage saving as detailed below:

Percentage savings over ASHRAE 90.1 2022 base case	Percentage savings over ECSBC 2024 base case	Credit Points
1%	5 %	1
2%	8%	2
3%	11%	3
4%	14%	4
5%	17%	5
6%	20%	6
7%	23%	7
8%	26%	8

**Existing Hotels:****❖ Option 1: Energy Performance Index (EPI):**

Demonstrate that the annual energy consumption in the building has achieved savings over the baseline.

Star Classification	EPI
5 star	<250
4 star	<200
3 star	<150
Below 3 star	<120



Points are awarded based on energy percentage saving as detailed below:

Percentage savings over baseline EPI	Credit Points
5 %	1
8%	2
11%	3
14%	4
17%	5
20%	6
23%	7
26%	8

(OR)

❖ **Option 2: Energy Use Intensity (EUI):**

Demonstrate that the Energy Use Intensity in the building has achieved savings over the baseline.

Star Classification	EUI (kWh/room night)
5 star	<120
4 star	<100
3 star	<80
Below 3 star	<60

Points are awarded based on energy percentage saving as detailed below:

Percentage savings over baseline EUI	Credit Points
5 %	1
8%	2
11%	3
14%	4
17%	5
20%	6
23%	7
26%	8

**Note:**

- Hotels which are not star classified shall demonstrate compliance as per the applicable star classification by the Ministry of Tourism.

(OR)





### ❖ Option 3 : Calibrated Simulation

Demonstrate energy compliance for building/ space through calibrated simulation following M&V Protocols such as IPMVP/FEMP/ASHRAE 14. Simulation model shall be calibrated based on whole building energy consumption and any major energy end use (chiller/ cooling energy consumption/ lighting/ ventilation/ etc.).

Project to develop As Is case and define baseline specifications/ parameters following ASHRAE 90.1 - 2022/ ECSBC 2024 to compare energy performance.

Points are awarded based on energy percentage saving as detailed below:

Percentage savings over baseline EUI	Credit Points
5 %	1
8%	2
11%	3
14%	4
17%	5
20%	6
23%	7
26%	8

#### Notes:

- Onsite Renewable Energy (RE) shall not be considered in energy saving calculation.
- Lighting Load shall be submitted separately for Interior and exterior lighting.

### Exemplary Performance:

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if 9% savings are achieved from ASHRAE 90.1-2022 base case or 29% savings are achieved from ECSBC 2024 base case or EUI.

### Documentation Required:

#### Precertification

#### Performance Based Approach (Whole Building Simulation):

- i. Building simulation analysis with the following information, as applicable:

*Note: The baselines should be as per Energy Conservation Sustainability Building Code 2024 (Or) ASHRAE Standard 90.1-2022 (without amendments), Appendix-G*

- a) Narrative stating the climate zone and the list of Energy Conservation Measures (ECMs) proposed in the project.
- b) Note: The list should include all ECMs that differ from the baseline building performance to proposed building performance.
- c) Window-to-wall ratio (WWR) calculations for each building.



- d) Comparison between the baseline building performance and the proposed building performance with percentage improvement.
- e) The schedules for lighting power, thermostat set-point, HVAC system, miscellaneous equipment power, etc., for proposed building, as determined by the designer.
- f) Input & output report(s) from the simulation program or compliance software including a breakdown of energy usage for the following components, but not limited to: interior lighting and exterior lighting, space cooling & heat rejection equipment, space heating equipment, fans, other HVAC equipment (such as pumps), internal and external equipment loads, etc., The output reports should also show the unmet hours by the HVAC system, for both the proposed design and baseline building design.
- g) An explanation of any error messages noted in the simulation program output.
- ii. Details of the glazing proposed along with the list of identified manufacturers and respective specifications of glazing (SHGC value, U-value and VLT, as applicable).
- iii. Construction details and sectional drawings of the wall assembly proposed (including wall insulation material, etc.), along with the U-value of the overall wall assembly.
- iv. Construction details and sectional drawings of the roof assembly proposed (including roof insulation material, etc.), along with the U-value of the overall roof assembly.
- v. Details of the lighting fixture and controls proposed.
  - d) Conceptual interior and exterior lighting layout. (Optional)
  - e) LPD calculations, as per 'Building Area Method' or 'Space-by-Space method / Space function method'
  - f) Declaration letter signed by the project owner/ lighting consultant indicating the proposed LPD.
- vi. Details of the air-conditioning system proposed indicating the COP/ EER values.
- vii. Details of the space heating system proposed indicating the COP/ EER values.
- viii. Details of solar water heating system such as calculations, plans showing location of solar water heating system.
- ix. Manufacturer brochures/ cut-sheets/ letters indicating the efficiency parameters for glazing (SHGC value, U-value and VLT), wall and roof insulation materials, lighting fixtures & systems, air-conditioning system and space heating system, solar water heating system, as applicable.

### **Certification:**

### **New Hotels**

#### **Performance Based Approach (Whole Building Simulation):**

- i. Building simulation analysis with the following information, as applicable:  
The baselines should be as *Energy Conservation Sustainability Building Code 2024 (Or) ASHRAE Standard 90.1-2022 (without amendments), Appendix-G*



- h) Narrative stating the climate zone and the list of Energy Conservation Measures (ECMs) implemented in the project.
- i) Note: The list should include all ECMs that differ from the baseline building performance to proposed building performance.
- j) Window-to-wall ratio (WWR) calculations for each building.
- k) Comparison between the baseline building performance and the proposed building performance with percentage improvement.
- l) The schedules for lighting power, thermostat set-point, HVAC system, miscellaneous equipment power, etc., for the proposed building, as determined by the designer.
- m) Input and output report(s) from the simulation program or compliance software including a breakdown of energy usage for the following components, but not limited to: interior lighting and exterior lighting, space cooling & heat rejection equipment, space heating equipment, fans, other HVAC equipment (such as pumps), internal and external equipment loads, etc., The output reports should also show the unmet hours by the HVAC system, for both the proposed design and baseline building design.
- n) An explanation of any error messages noted in the simulation program output.
  - ii. Details of the glazing along with the specifications (SHGC value, U-value and VLT).
  - iii. Construction details and sectional drawings of the wall assembly (including wall insulation material, etc.), along with the U-value of the overall wall assembly.
  - iv. Construction details and sectional drawings of the roof assembly (including roof insulation material, etc.), along with the U-value of the overall roof assembly.
  - v. Details of the lighting systems and controls including the list of interior and exterior lighting fixtures, with make and model.
- c) LPD calculations, as per 'Building Area Method' or 'Space-by-Space method / Space function method'.
- d) Interior and exterior lighting layout.
  - vi. Details of the air-conditioning system indicating the COP/ EER values, along with make and model.
  - vii. Details of the space heating system indicating the COP/ EER values, along with make and model.
  - viii. Details of solar water heating system such as calculations, plans showing location of solar water heating system.
  - ix. Other Energy Conservation Measures (ECMs) details.
  - x. Manufacturer brochures/ cut-sheets/ letters indicating the efficiency parameters for glazing (SHGC value, U-value and VLT), wall and roof insulation materials, lighting fixtures & systems, air-conditioning system and space heating system, solar water heating system, as applicable.



- xi. Purchase invoices of energy conservation measures implemented in the project such as glass, wall and roof insulation, lighting systems, chillers, heat recovery wheel, solar hot water system, etc., as applicable.

### **Existing Hotels**

#### **Option 1- EPI**

- i. Narrative describing the annual energy consumption of the hotel, including all energy sources used within the facility (electricity, diesel, solar, etc.).
- ii. Electricity bills of the preceding 1 year.
- iii. Calculations indicating the Energy Performance Index (EPI) in kWh/sq.m.

#### **Option 2 - EUl**

- i. Narrative describing the annual energy consumption of the hotel, including all energy sources used within the facility (electricity, diesel, solar, etc.).
- ii. Annual room-night occupancy details indicating total rooms occupied per month.
- iii. Calculations indicating the Energy Use Intensity (EUI) in kWh/room night.

#### **Option 3 – Calibrated Simulation**

- i. Submit Energy Performance Index (EPI) calculation along with monthly energy consumption for last 3 years (whole building and major energy end use) in the prescribed format.
- ii. Submit project area details clearly indicating total built up area, total conditioned area, unconditioned area, and basement area.
- iii. Energy Simulation Report along with specifications of 'as is' case and baseline (building envelope, interior & exterior lighting, HVAC, equipment, actual schedules). Report shall include error limits such as MBE and CvRMSE and at least 5 recommendations proposed/ implemented for energy conservation on monthly basis.

**Energy Efficient Kitchen System****New Hotel****Existing Hotel****EE Credit 3****Credit Points: 3****Intent:**

To enhance kitchen energy efficiency through efficient equipment, partial electrification, and demand-controlled ventilation.

**Compliance Options:****❖ Option 1: Kitchen Electrification****Credit Points: 2**

Demonstrate the percentage of commercial cooking equipment that are electric-powered to enhance operational energy efficiency, as shown in the following table.

$$\text{Electrification \%} = \frac{\text{Total Number of Electric Cooking Equipments}}{\text{Total Number of Cooking Equipments (All Utilities)}} \times 100$$

Type of the Facility	Kitchen Electrification Percentage
New Hotel	50%
Existing Hotel	30%

**Notes:**

- Commercial cooking equipment such as cooktops, ovens, griddles, steam cookers, fryers, woks shall be considered.
- If Multi-Utility equipment is used, consider only the utility which is primarily used of cooking purposes for calculations.

**(AND/OR)****❖ Option 2: Demand Control Kitchen Ventilation System****Credit Point: 1**

Demonstrate that the project has a demand control kitchen ventilation system that is engineered to modulate the kitchen hood exhaust rate based on the cooking activity.

**Exemplary Performance:**

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if 70% of Kitchen is run by electrical appliances in New Hotels and 50% of Kitchen is run by electrical appliances in Existing Hotels, one point is awarded.

**Documentation Required:****Precertification****Option 1: Kitchen Electrification**

- i. Narrative describing the type of kitchen equipment proposed (cooktops, ovens, griddles, steam cookers, fryers, woks), along with the list of proposed equipment with utility type.
- ii. Tentative calculation indicating the kitchen electrification percentage.
- iii. Manufacturer cut-sheets / data sheets of the proposed electrical kitchen equipment.

**Option 2: Demand Control Ventilation**

- i. Narrative describing the demand-control kitchen ventilation design, including sensors, controls, and modulation strategy.
- ii. Drawings of the proposed Demand Control Ventilation system.

**Certification:****Option 1: Kitchen Electrification**

- i. Narrative describing the type of kitchen equipment installed (cooktops, ovens, griddles, steam cookers, fryers, woks), along with the list of proposed equipment with utility type.
- ii. Calculation indicating the kitchen electrification percentage.
- iii. Manufacturer cut-sheets / data sheets of the installed electrical kitchen equipment.
- iv. Purchase invoices of the installed electrical kitchen equipment.
- v. Photographs of the installed electrical kitchen equipment.

**Option 2: Demand Control Ventilation**

- i. Narrative describing the demand-control kitchen ventilation design, including sensors, controls, and modulation strategy.
- ii. Drawings of the installed Demand Control Ventilation system.
- iii. Photographs of installed ventilation hoods, sensors, and controls.
- iv. Purchase invoices of the installed Demand Control Ventilation.

**Energy Efficient Cold Room****New Hotel****Existing Hotel****EE Credit 4****Credit Point: 1****Intent:**

To enhance the energy efficiency of walk-in cold rooms and freezers by adopting thermally efficient insulation and high-performance refrigeration systems.

**Compliance Options:****❖ Option 1: Envelope Efficiency**

Demonstrate that the U-value of walk-in cold room and walk-in freezer complies with the requirements specified in *IS 661:2000 – Table 1 / Annex B*.

Storage Temperature Range (°C)	Maximum U – Values W/m <sup>2</sup> K			
	Exposed Walls	Intermediate Walls/Ceilings	Roofs	Floors
-30 to -20	0.17	0.47	0.14	0.20
-20 to -15	0.21	0.47	0.17	0.23
-15 to -4	0.23	0.47	0.21	0.27
-4 to 2	0.27	0.58	0.24	0.29
2 to 10	0.35	0.93	0.29	0.47
10 to 16	0.47	0.93	0.29	0.64
16 and above	1.28	1.47	1.05	1.63

**(AND)****❖ Option 2: Cold Room Efficiency**

Demonstrate the best practices followed for efficient energy use in the walk-in cold rooms and freezers provided in the facility.

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification****Option 1: Envelope Efficiency**

- Narrative describing the proposed walk-in cold room and freezer layout, storage temperature ranges, insulation strategy, and the overall approach adopted to enhance energy efficiency.



- ii. List of all walk-in cold rooms and freezers proposed in the facility, indicating make, model, storage temperature range, refrigeration system type, and key control features
- iii. U-value calculation demonstrating compliance with IS 661:2000 – Table 1 / Annex B for exposed walls, intermediate walls/ceilings, roofs, and floors.
- iv. Insulation manufacturer data sheets showing thermal conductivity (k-value), thickness, and construction details.

#### **Option 2: Cold Room efficiency**

- i. Narrative describing the energy-efficient measures proposed.

#### **Certification**

##### **Option 1: Envelope Efficiency**

- i. Narrative describing the installed walk-in cold room and freezer layout, storage temperature ranges, insulation strategy, and the overall approach adopted to enhance energy efficiency.
- ii. List of all walk-in cold rooms and freezers installed in the facility, indicating make, model, storage temperature range, refrigeration system type, and key control features
- iii. U-value calculation demonstrating compliance with IS 661:2000 – Table 1 / Annex B for exposed walls, intermediate walls/ceilings, roofs, and floors.
- iv. Insulation manufacturer data sheets showing thermal conductivity (k-value), thickness, and construction details.
- v. Photographs of the walk-in cold rooms and freezers installed in the facility.

##### **Option 2: Cold Room efficiency**

- i. Narrative describing the energy-efficient measures implemented.
- ii. Photographs of the energy efficient measures implemented.



**Domestic Hot Water System****New Hotel****Existing Hotel****EE Credit 5****Credit Points: 2****Intent:**

To optimize energy use by adopting renewable or high-efficiency systems for meeting hot water demand.

**Compliance Options:****❖ Option 1: Solar Water Heating Systems:****Credit Point: 1**

Install solar water heating system to meet at least 20% of the total hot water demand.

**(AND/OR)****❖ Option 2: Energy Efficient Hot Water Systems:****Credit Point: 1**

- Provide high-efficiency heat pump systems to meet the hot water requirement with a minimum Coefficient of Performance (COP) as below:

Heat Pump	COP Range
Air Source Heat Pump	$\geq 3.5$
Water Source Heat Pump	$\geq 4.5$
Ground Source Heat Pump	$\geq 3.0$

**(OR)**

- Provide Boilers of at least 95% efficiency to meet the hotel water hot water requirement.

**(OR)**

- Provide BEE 5 star Geysers catering to at least 80% of hot water requirement of the hotel facility.

**Note:**

- All types of boilers shall be considered to demonstrate compliance.

**Exemplary Performance:**

The project is not eligible for exemplary performance.

**Documentation Required:****Precertification****Option 1: Solar Water Heating system**

- i. Narrative describing the total hot water demand proposed for the facility.
- ii. Tentative calculation demonstrating that the proposed solar water heating system meets at least 20% of the total hot water demand.
- iii. Schematic layout/SLD indicating proposed solar water heating systems.
- iv. Manufacturer cut sheets / data sheets of the proposed solar water heating system.

**Option 2: Energy Efficient Hot water system**

- i. Narrative and list of the energy efficient hot water systems proposed in the facility (solar water heater, heat pumps, boilers, geysers), indicating make, model, capacity, and utility type.
- ii. Schematic layout/SLD indicating proposed energy efficient hot water systems.
- iii. Manufacturer cut-sheets / data sheets of the proposed energy efficient hot water systems indicating the efficiency values.

**Certification:****Option 1: Solar Water Heating system**

- i. Narrative describing the total hot water demand installed in the facility.
- ii. Calculations demonstrating that the installed solar water heating system meets at least 20% of the total hot water demand.
- iii. Layout/SLD indicating installed solar water heating systems.
- iv. Manufacturer cut sheets / data sheets of the installed solar water heating system.
- v. Purchase invoice of the installed solar water heating system.
- vi. Photographs of the installed solar water heating system.

**Option 2: Energy Efficient Hot water system**

- i. Narrative and list of the energy efficient hot water systems installed in the facility (solar water heater, heat pumps, boilers, geysers), indicating make, model, capacity, and utility type.
- ii. Layout/SLD indicating installed energy efficient hot water systems.
- iii. Manufacturer cut-sheets / data sheets of the installed energy efficient hot water systems indicating the efficiency values.
- iv. Purchase invoice of the installed energy efficient hot water systems
- v. Photographs of the installed energy efficient hot water systems.

**Energy Efficient Laundry System****New Hotel****Existing Hotel****EE Credit 6****Credit Points: 1****Intent:**

To improve energy performance in laundry operations through efficient equipment and optimized operational practices.

**Compliance Options:****In-house Laundry facility :****❖ Option 1: Laundry Washer****Credit Point: 1**

Demonstrate that the in-house laundry system has washer efficiency  $\geq 0.0623$  m<sup>3</sup>/kWh/cycle.

$$\text{Washer Efficiency} = \frac{\text{Capacity of the clothes container (m}^3\text{)}}{\text{Total energy consumption per cycle (kWh)}}$$

**(OR)****❖ Option 2: Laundry Dryer****Credit Point: 1**

Demonstrate that the Combined Energy Factor (CEF) of the dryer installed in the hotel is as per the following table:

$$\text{Combined Energy Factor} = \frac{\text{Capacity of the clothes container (kg)}}{\text{Total energy consumption per cycle (kWh)}}$$

Type of the Dryer in the facility	CEF value
Vented Gas Dryer	$\geq 1.57$ kg/kWh
Ventless or Vented Electric <i>Model-Standard or 4.4cu.ft and above</i>	$\geq 1.78$ kg/kWh
Ventless or Vented Electric <i>Model- Compact, 120V</i>	$\geq 1.72$ kg/kWh
Vented or Ventless Electric <i>Model- Compact, 240V</i>	$\geq 1.56$ kg/kWh

**(OR)**



### ❖ Option 3: Laundry Energy Performance

**Credit Point: 1**

*(Applicable only for Existing hotel)*

Demonstrate that the annual energy consumption of the in-house laundry facility is  $\leq$  1.45 kWh/kg of laundry processed.

$$\text{Laundry Energy Performance} = \frac{\text{Annual energy consumption from all the Laundry System (kWh)}}{\text{Annual Laundry Load (kg)}}$$

#### **Note:**

- *For the energy consumption calculations, consider all the laundry systems such as Washer Extractor, Hydro Washer, Tumble Dryer, Equipment for Dry Cleaning, Water softener, Boiler/Hot water generator etc.,*

**(OR)**

### **Outsourced Laundry facility**

**Credit Point: 1**

Demonstrate that the outsourced laundry facility is located within 10 km radius from the hotel.

#### **Exemplary Performance:**

This credit is not eligible for exemplary performance.

#### **Documentation Required:**

##### **Precertification**

##### **In-house Laundry**

##### **Option 1: Laundry Washer**

- Narrative describing the proposed laundry washer- type and capacity.
- Tentative calculation indicating the laundry washer efficiency.
- Manufacturer cut-sheets / data sheets showing washer capacity (m<sup>3</sup>) and total energy consumption per cycle (kWh).

##### **Option 2: Laundry Dryer**

- Narrative describing the proposed laundry dryer- type and capacity.
- Tentative calculation indicating the laundry dryer combined energy factor (CEF).
- Manufacturer cut sheets / data sheets indicating dryer type (vented/ventless, gas/electric), capacity (kg), and total energy consumption per cycle (kWh).



### **Outsourced Laundry**

- i. Narrative describing the outsourced laundry facility, including the name of the laundry service provider, services handled, and operational overview.
- ii. Draft copy of contract agreement that will be signed between the project owner and the laundry provider. (as applicable).
- iii. Satellite image indicating the distance of the laundry facility from the hotel.

### **Certification**

#### **In-house Laundry**

##### **Option 1: Laundry Washer**

- i. Narrative describing the laundry washer installed, along with list indicating type and capacity.
- ii. Calculation indicating the laundry washer efficiency.
- iii. Manufacturer cut sheets / data sheets showing washer capacity (m<sup>3</sup>) and total energy consumption per cycle (kWh).
- iv. Photographs of the Laundry washer installed.
- v. Purchase invoice of the Laundry washer installed.

##### **Option 2: Laundry Dryer**

- i. Narrative describing the laundry dryer installed, along with list indicating type and capacity.
- ii. Calculation indicating the laundry dryer combined energy factor (CEF).
- iii. Manufacturer cut sheets / data sheets indicating dryer type (vented/ventless, gas/electric), capacity (kg), and total energy consumption per cycle (kWh).
- iv. Photographs of the Laundry dryer installed.
- v. Purchase invoice of the Laundry dryer installed.

##### **Option 3: Laundry performance**

- i. Narrative describing the list of laundry systems considered such as Washer Extractor, Hydro Washer, Tumble Dryer, Equipment for Dry Cleaning, Water softener, Boiler/Hot water generator etc., to calculate the laundry performance of the hotel.
- ii. Log book or Excel based data indicating load, energy consumption and chemical consumption data.
- iii. Photographs of all the laundry systems considered for the calculations.

**Outsourced Laundry**

- i. Narrative describing the outsourced laundry facility, including the name of the laundry service provider, services handled, and operational overview.
- ii. Copy of contract agreement that signed between the project owner and the laundry provider. (as applicable)
- iii. Satellite image indicating the distance of the laundry facility within a 10km radius from the hotel.

**Energy Efficient Dish Washing System****New Hotel****Existing Hotel****EE Credit 7****Credit Point: 1****Intent:**

To enhance kitchen energy efficiency by using high-performance dishwashing and pot washing equipment.

**Compliance Options:**

Install energy-efficient dishwashing system as per the below table:

Type of Dishwasher	Threshold for Energy consumption
Under Counter / Hood Type	$\leq 0.35$ kWh/rack
Conveyor type	$\leq 0.36$ kWh/rack
Pot and Pan Utensil Washer	$\leq 0.55 + 0.05 \times \text{rack area}^*$ (sq.ft)

**Note:**

- *Rack area\*- For Pot and Pan Utensil Washer, the rack area is defined based on the height and width (diameter) of the washer.*

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification**

- Narrative describing the type of dishwashing systems proposed (undercounter, hood type, conveyor, pot washer), along with the list of the systems proposed in the hotel.
- Manufacturer cut-sheets / brochures / technical data sheets of the systems proposed in the hotel indicating the energy consumption (kWh/rack area) and cycle details.

**Certification**

- Narrative describing the type of dishwashing systems installed (undercounter, hood type, conveyor, pot washer), along with the list of the systems provided in the hotel.



- ii. Manufacturer cut-sheets / brochures / technical data sheets of the systems proposed in the hotel indicating the energy consumption (kWh/rack area) and cycle details.
- iii. Photographs of dishwashers and pot/pan washers installed in the kitchen areas.
- iv. Purchase invoices indicating make and model of the installed dishwashing systems, wherever applicable.





## Energy Recovery Systems

New Hotel

Existing Hotel

EE Credit 8

Credit Point: 2

### Intent:

To improve overall energy efficiency by recovering and reusing thermal energy from building equipment in hotel operations.

### Compliance Options:

Recover and reuse thermal energy from at least two of the following systems for use in hotel operations (*1 credit point for each measures, maximum 2 points*) HVAC system (e.g., condenser heat recovery, heat recovery wheel)

- ❖ HVAC system (e.g., condenser heat recovery, heat recovery wheel)
- ❖ Kitchen exhaust systems (e.g., exhaust air heat recovery)
- ❖ Laundry systems (e.g., wastewater or dryer exhaust heat recovery)
- ❖ Dishwasher systems (e.g., rinse-water heat recovery)
- ❖ Hot water systems (e.g., flue gas heat recovery)
- ❖ DG sets (e.g., generator exhaust heat recovery)

### Exemplary Performance:

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance if heat recovery is implemented for more than 3 systems.

### Documentation Required:

#### Precertification

- i. Narrative describing the energy recovery strategy adopted by the hotel, including the list of the energy recovery systems (HVAC, kitchen, laundry, dishwasher, hot water, DG exhaust) proposed in the facility from which heat is recovered, the recovery mechanism, and the end-use applications.
- ii. Manufacturer cut-sheets / data sheets of the proposed energy recovery system (heat exchangers, heat recovery wheels, condensers, exhaust recovery units, etc.)
- iii. System schematic / flow diagram showing the source of waste heat, heat recovery device, and end-use application.

#### Certification

- i. Narrative describing the energy recovery strategy adopted by the hotel, including the list of the energy recovery systems (HVAC, kitchen, laundry, dishwasher, hot water, DG exhaust) installed in the facility from which heat is recovered, the recovery mechanism, and the end-use applications.



- ii. Manufacturer cut-sheets / data sheets of the proposed energy recovery system (heat exchangers, heat recovery wheels, condensers, exhaust recovery units, etc.)
- iii. System schematic / flow diagram showing the source of waste heat, heat recovery device, and end-use application.
- iv. Photographs of the energy recovery systems installed in the hotel.
- v. Purchase invoice of the Energy recovery systems installed.

**Periodic Energy Assessment****New Hotel****Existing Hotel****EE Credit 9****Credit Points: 2****Intent:**

Ensure continuous energy performance in the hotel project, so as to achieve benefits during the lifetime of the facility.

**Compliance Options:****❖ Option 1: Energy Assessment****Credit Point: 1**

Demonstrate that the project has carried out a detailed Energy Assessment once in 2 years following guidelines by Bureau of Energy Efficiency

**(AND/OR)**

**❖ Option 2: Energy Efficiency Measures****Credit Point: 1**

Demonstrate the energy efficiency measures implemented/ proposed to be implemented.

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Certification:**

- i. Energy assessment reports following guidelines by Bureau of Energy Efficiency indicating opportunities/ measures for energy conservation in the hotel.
- ii. Action plan initiated after the audit to reduce energy consumption or list of proposed Energy efficiency measures.
- iii. Documentary proof to validate the implemented energy efficiency measures for the hotel.



## Energy Performance

New Hotel	Existing Hotel
-----------	----------------

EE Credit 10

Credit Points: 2,3

### Intent:

Encourage metering and monitoring of equipment on continuous basis to ensure benchmarks are met or exceeded.

### Compliance Options:

#### ❖ Option 1: Energy Metering

Credit Points: 1

Demonstrate submetering for at least three of the following energy use applications, as applicable:

- Interior & Common area lighting
- Exterior area lighting
- Municipal water pumping
- Ground water pumping
- Treated waste water pumping
- Renewable energy generation
- Power backup systems (Generators sets, Gas turbines, etc.,)
- Elevators, Escalators, Travelators, etc.,
- BTU meter for chilled water consumption
- Any other energy consuming equipment and systems

(AND/OR)

#### ❖ Option 2: Building Management Systems

Credit Points: 1,2

Demonstrate that the building management system is in place to monitor and control the following systems, as applicable (*1 credit point for New Hotels, 2 credit points for Existing Hotels*):

- Air-conditioning management system
- Lighting management system
- Renewable energy management system
- Elevator management system
- Fresh air monitoring system
- CO2 control and monitoring system



The project team shall commit to provide the annual total building energy consumption data to IGBC. The energy data shall be provided for all the major energy consuming equipment and systems.

Points are awarded as below:

Type of Monitoring	New Hotels	Existing Hotels
Energy Metering	1	1
Building Management System	1	2

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification:****Option 1: Energy Metering**

- i. Narrative describing the energy meters proposed in the project.
- ii. Single line drawing showing the proposed energy meters.

**Option 2: Building Management System**

- i. Narrative describing the building management system proposed in the project, to control and monitor equipment and systems.
- ii. Declaration letter from the project owner/ developer stating that the project will provide the annual total building energy consumption data to IGBC.

**Certification****Option 1 : Energy Metering**

- i. Narrative describing the energy meters installed in the project.
- ii. Single line drawing showing the energy meters.
- iii. Photographs of the energy meters installed in the project.

**Option 2: Building Management System**

- i. Narrative describing the building management system installed in the project, to control and monitor equipment and systems.
- ii. Energy use data for twelve consecutive months (one full year) for the various end uses sub metered in the hotel.



- iii. I/O summary of the BMS system installed.
- iv. Photographs showing the systems monitored through the building management system.



# MATERIAL STEWARDSHIP



## Waste Segregation & Circularity

New Hotel	Existing Hotel
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### MS Mandatory Requirement 1

#### Intent:

Facilitate segregation of waste at source to encourage reuse or recycling of materials, thereby avoiding waste being sent to landfills.

#### Compliance Options:

##### ❖ Dry and Wet Waste

Provide separate bins to collect dry waste (paper, plastic, metals, glass, sanitary Waste etc.,) and wet waste (Food), at all the guest rooms and common areas of the hotel, as applicable. Divert the collected waste to a centralized facility, which is easily accessible for hauling.

#### (AND)

##### ❖ Hazardous Waste

In addition to dry and wet waste bins, provide separate bins for safe disposal of the following hazardous waste, at the centralized facility:

- Batteries
- 'e' waste
- Lamps
- Used cooking oil (if collected for recycling into biofuel) -
- Medical waste, if any

#### (AND)

##### ❖ Responsible Handling

Demonstrate contracts with recyclers for responsible handling of waste generated in the facility

#### Note:

- *The project shall follow the Hazardous Waste Management Guidelines as prescribed by the Ministry of Environment & Forest (MoEF), Government of India.*
- *Common areas include lobbies, restaurants, banquet halls, pools, corridors, etc.*





## Documentation Required:

### **Precertification**

- i. Narrative describing the strategies proposed to:
  - a. Segregate and divert dry waste (paper, plastic, metals, glass, etc.,) and wet waste from the building(s) to the easily accessible common facility
  - b. Divert dry & wet waste and other waste such as batteries, e-waste, lamps, and medical waste (if any), from the common facility
- ii. Conceptual floor plans showing the location of waste bins at floor level and common areas, as applicable
- iii. Conceptual Site/ floor plan showing the location of the centralized facility for segregation of waste
- iv. Identify list of potential recycler/vendors for responsible handling of waste generated in the hotel

### **Certification**

- i. Narrative describing the strategies proposed to:
  - a. Segregate and divert dry waste (paper, plastic, metals, glass, etc.,) and wet waste from the building(s) to the easily accessible common facility
  - b. Divert dry & wet waste and other waste such as batteries, e-waste, lamps, and medical waste (if any), from the common facility
- ii. Floor plans showing the location of waste bins at floor level and common areas, as applicable
- iii. Site/ floor plan showing the location of the centralized facility for segregation of waste
- iv. Contract agreement with recyclers for responsible handling of waste generated in the hotel
- v. Photographs showing the waste bins provided at floor level and centralized facility.



## Sustainable Procurement

### MS Credit 1

New Hotel	Existing Hotel
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**Credit Points: 2**

#### Intent:

Demonstrate the commitment to purchase products or services with lowest environmental impact in hotel operations

#### Compliance Options:

##### ❖ Option 1: Sustainable Procurement

**Credit Point: 1**

Demonstrate that the hotel has adopted green purchasing for the following: *(1 credit point for two measures)*

- Use recycled or FSC-certified paper for menu cards, guest bills, brochures, and visiting cards.
- Use non-bleached/chlorine-free toilet paper.
- Use recycled and/or non-bleached tissue paper (facial tissues, napkins, paper towels).

#### (AND/OR)

##### ❖ Option 2: Plastic Free Hospitality

**Credit Point: 1**

Replace at least 75% of single-use plastics with Reusable/Eco-friendly alternatives in the following areas:

- Cutleries & utensils in restaurants
- Packaging materials
- Guest amenities
- Water bottles etc

#### Exemplary Performance:

This credit is not eligible for exemplary performance.

#### Documentation Required:

##### Precertification

##### Option 1: Sustainable Procurement

- i. Narrative describing the hotel's approach towards sustainable procurement along with the list of identified products proposed for implementation in the project
- ii. Manufacturer brochure/ Technical datasheets of identified products proposed for implementation in the project
- iii. Sample photographs of identified products proposed for implementation in the project
- iv. Declaration/ Policy statement indicating the hotel's commitment to adopt sustainable procurement practices for identified materials.



### **Option 2: Plastic Free Hospitality**

- i. Narrative describing the hotel's approach towards achieving a plastic-free environment along with the list of single-use plastic items proposed to be replaced and identified eco-friendly alternatives.
- ii. Manufacturer brochure / technical datasheets of proposed eco-friendly alternatives.
- iii. Sample photographs of identified eco-friendly alternatives
- iv. Declaration / policy statement from hotel management committing to eliminate single-use plastics in hotel operations.

### **Certification**

#### **Option 1: Sustainable Procurement**

- i. Narrative describing the sustainable procurement practices adopted in the project along with the list of sustainable products procured and implemented in the project.
- ii. Purchase invoices indicating procurement of recycled, FSC-certified, or non-bleached materials.
- iii. Product specification sheets confirming recycled content, FSC certification, or chlorine-free properties.
- iv. Photographs of implemented products within the hotel premises

#### **Option 2: Plastic Free Hospitality**

- i. Narrative describing the measures implemented to achieve a plastic-free environment along with the list of eco-friendly alternatives implemented in place of single-use plastics.
- ii. Purchase invoices for reusable or biodegradable products adopted in the project
- iii. Manufacturer brochure / technical datasheets of the eco-friendly alternatives adopted in the project.
- iv. Photographs of eco-friendly alternatives adopted in the project



## Waste Footprint Reduction

**New Hotel**
**Existing Hotel**

### MS Credit 2

**Credit Points: 2**

#### Intent:

To reduce single-use products and promote adoption of reusable products to minimize the overall negative environmental impact

#### Compliance Options:

##### ❖ Option 1: Waste Reduction Measures

**Credit Points: 2**

##### ➤ Digital and Paperless Operations *(Any one measure)*

**Credit Point: 1**

- Implement paperless operations such as digital check-in/check-out and e-billing.
- Provide digital menus accessible through QR codes in restaurants, guest rooms, and banquets.

#### (AND/OR)

##### ➤ Green Guest Service *(Any two measures)*

**Credit Point: 1**

- Use reusable and non-plastic water containers for drinking water in guest rooms, restaurants, and banquets.
- Replace paper tissue napkins in dining areas with reusable cloth napkins.
- Limit to use of five individually packaged single-serving food and beverage items (e.g., milk/cream, coffee, tea, sugar, butter, honey, jam, yoghurt, cheese, condiments, etc.).  
*Note: Additional items may be provided on guest request to reduce packaging waste.*
- Provide guest toiletries through refillable dispensers instead of single-use plastic containers.

#### (OR)

##### ❖ Option 2: Waste Intensity Index

**Credit Points: 2**
*(Applicable for Existing Hotels)*

Projects shall calculate and demonstrate the Waste Intensity on a per room night basis as follows:

$$\text{Solid Waste Generation (kg/room night)} = \frac{\text{Annual Solid Waste Generation (kg)}}{\text{Annual Room Nights}}$$

Type equation here.

Annual Room Nights = Total rooms occupied in a year

Thresholds for Solid Waste Generation (kg per room night):

3 Star Hotel & Below	4 Star & 5 Star Hotel	Credit Points
≤ 1.5kg/room night	≤ 6 kg/room night	1
≤ 1kg/room night	≤ 4 kg/room night	2



**Note:**

- *The project shall consider all types of dry waste and wet waste generated to demonstrate credit compliance.*

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:**

**Precertification**

**Option 1: Waste Reduction Measures**

- Narrative describing the hotel's approach towards waste reduction and identified waste reduction measures proposed for implementation in the hotel
- Sample photographs of proposed measures proposed for implementation in the hotel
- Declaration / policy statement from hotel management committing to implement waste reduction initiatives

**Certification**

**Option 1: Waste Reduction Measures**

- Narrative describing the waste reduction measures implemented in the project.
- Purchase invoices for products adopted in the project
- Photographs of waste reduction measures implemented in the project.

**Option 2: Waste Intensity Index**

- Narrative describing the waste management practices implemented and achieved waste intensity levels.
- Calculations indicating the waste intensity (kg per room night)
- Log records/books indicating the waste generated for 12 months along with number of room nights.



## Green Products

**New Hotel**
**Existing Hotel**

### MS Credit 3

**Credit Points: 2**

#### Intent:

To use eco-labelled building material, product, equipment, and technology to reduce the negative environmental impacts.

#### Compliance Options:

Ensure that the project procures GreenPro or Type 1 eco-labelled products, materials & technologies.

##### ❖ Option 1: Eco-labelled Products

**Credit Points: 2**
*(Applicable only for New Hotels)*

Ensure that at least 30% of the total building materials and products (by cost) used in the hotel are GreenPro or Type 1 eco-labelled products.

% of Eco labelled Products Procured	Credit Points
≥ 30%	1
≥ 40%	2

(OR)

##### ❖ Option 2: Green Operation & Maintenance

**Credit Points: 2**
*(Applicable only for Existing Hotels)*

Ensure that the project uses at least two passive or active green building materials, products, and equipment that are certified by GreenPro or Type 1 eco-labelled.

Number of Certified Green Products Used	Credit Points
2	1
4	2

#### Notes:

- *Passive Products & Materials include glazing, insulation, paints & coatings, adhesives & sealants, fly ash blocks, cement, concrete, composite wood, certified new wood, housekeeping chemicals, false ceiling materials, flooring materials, furniture, gypsum based products, high reflective materials & coatings, etc.*
- *Active Products include Electrical systems (Lighting Systems & Controls, Pumps & Motors, etc.), Mechanical systems (unitary air conditioners, etc.), Plumbing Fixtures (faucets, showers, etc.)*
- *Material/ products procured should be quantifiable with respect to the cost of operation & maintenance.*

**Exemplary Performance:**

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if at least 50% of the total building materials and products (by cost) used in the hotel are GreenPro or Type 1 eco-labelled products or at least 6 passive or active green building materials, products, and equipment that are certified by GreenPro or Type 1 eco-labelled.

**Documentation Required:****Precertification****Option 1: Eco-labelled Products**

- i. Narrative describing the hotel's approach towards adoption of eco-labelled products and strategies proposed in the hotel
- ii. Tentative calculations indicating the cost of GreenPro certified products and the total cost of materials/products purchased, in percentage.
- iii. GreenPro / Type 1 eco-label certificates or equivalent third-party certifications for green building materials, products, and equipment proposed in the hotel.

**Certification****Option 1: Eco-labelled Products**

- i. Narrative describing the hotel's approach towards adoption of eco-labelled products and strategies implemented in the hotel
- ii. Calculations indicating the cost of GreenPro certified products and the total cost of materials/products purchased, in percentage.
- iii. GreenPro / Type 1 eco-label certificates or equivalent third-party certifications for green building materials, products, and equipment procured in the hotel
- i. Photographs of certified materials, equipment, and products procured in the hotel.

**Option 2: Green Operation & Maintenance**

- ii. Narrative describing the strategies to source passive or active green building materials, products, and equipment, that are certified by IGBC under Green Product Certification Programme or by a third-party agency approved by IGBC. *Note: The narrative should also include the list of passive or active green building materials, products, and equipment, with certification details.*
- iii. Purchase Invoices and Test certificates/ reports of the passive or active green building materials, products, and equipment.
- iv. GreenPro / Type 1 eco-label certificates or equivalent third-party certifications for passive or active green building materials, products, and equipment procured in the hotel.
- v. Photographs of certified materials, equipment, and products procured in the hotel.



## Organic Waste Management

MS Credit 4

New Hotel

Existing Hotel

Credit Points: 2

### Intent:

Ensure effective waste management, so as to avoid organic waste being sent to landfills and to improve sanitation & health.

### Compliance Options:

#### ❖ Option 1: Aerobic Digestion

Credit Points: 2

Install an efficient aerobic digestion system (eg: organic waste converter) for handling 100% of the organic waste generated in the hotel and utilize the manure generated within the hotel.

$$\text{Equipment Efficiency} = \frac{\text{Rated Power (kW)}}{\text{Rated Capacity (kg)}}$$

Points are awarded as below:

Equipment Efficiency (kW/kg)	Credit Points
< 0.06 kW/kg	1
0.06 kW/kg - 0.09 kW/kg	2

### Notes:

*If the project is having an organic waste convertor in an enclosed room, then design such area with exhaust system, self-closing door, deck-to-deck partition/ hard ceiling*

(OR)

#### ❖ Option 2: Anaerobic Digestion (Waste to Energy)

Credit Points: 2

Install on-site biogas treatment (WTE) system for handling more than 90% of the organic waste generated in the hotel.

### Exemplary Performance:

This credit is not eligible for exemplary performance.

### Documentation Required:

#### Precertification

##### Option 1: Aerobic Digestion

- Narrative describing the quantities and strategies proposed to handle food waste and garden waste generated in the hotel and the on-site organic waste treatment system





- ii. Conceptual site plan/floor plan highlighting the location of on-site organic waste treatment system in the project
- iii. Manufacturer brochure/ cut-sheet of the organic waste treatment system highlighting make, model, capacity (kg/day), and rated power (kW/kg) proposed in the project
- iv. Tentative calculations indicating the organic waste treatment system efficiency (kW/kg)

#### **Option 2: Anaerobic Digestion**

- i. Narrative describing the waste to energy treatment system and details of how the biogas produced is utilized
- ii. Conceptual site plan/ floor plan highlighting the location of waste to energy treatment system proposed in the project
- iii. Tentative calculations indicating the quantity of organic waste (Food and Garden) treated to the total quantity of organic waste generated, in percentage
- iv. Manufacturer brochure/ cut-sheet of the organic waste treatment system proposed in the project

#### **Certification**

##### **Option 1: Aerobic Digestion**

- i. Narrative describing the strategies to handle Food waste and Garden waste generated in the hotel, and the on-site organic waste treatment system
- ii. Site plan/Floor plan highlighting the location of on-site organic waste treatment system installed in the project
- v. Calculations indicating the organic waste treatment system efficiency (kW/kg)
- iii. Manufacturer brochure/ cut-sheet of the installed organic waste treatment system highlighting make, model, capacity (kg/day), and rated power (kW/kg).
- iv. Purchase invoice/ payment receipts of the installed organic waste treatment system.
- v. Photographs showing the installed organic waste treatment system

##### **Option 2: Anaerobic Digestion**

- i. Narrative describing the waste to energy system and details of how the biogas produced is utilized
- ii. Site plan/ Floor plan highlighting the location of waste to energy treatment system proposed in the project
- iii. Calculations indicating the quantity of organic waste (Food and Garden) treated to the total quantity of organic waste generated, in percentage
- iv. Logs indicating the quantity of biogas produced from the plant
- v. Manufacturer cutsheet of the organic waste treatment system proposed in the project
- vi. Purchase invoice/ payment receipts of the installed waste to energy.
- vii. Photographs showing the installed waste to energy system



CARBON  
NEUTRALITY

**Embodied Carbon Optimization****CN Credit 1****New Hotel****Existing Hotel****Credit Points: 4****Intent:**

Encourage the use of low carbon building materials, thereby, minimizing the associated environmental impacts

**Compliance Options:****❖ Option 1: Low Carbon Building Materials****Credit Point: 2**

Demonstrate the use of low carbon building materials through one of the following measures:

**➤ Local Materials****Credit Point: 1**

Ensure at least 30% of the total building materials (by cost) used in the hotel are manufactured locally within a distance of 400 km.

**Notes:**

- *Local Materials are those which are manufactured within a distance of 400 km. Assembly of building materials shall not be considered.*
- *Extraction and processing of raw materials need not be considered as part of this credit calculation.*

**(AND/OR)****➤ Materials with Recycled Content****Credit Point: 1**

Use materials with recycled content such that the total recycled content constitutes at least 20% of the total cost of building materials used in the hotel.

**Notes:**

- *Recycled Content is the content in a material or product derived from recycled materials versus virgin materials. Recycled content can be materials from recycling programs (post-consumer) or waste materials from the production process or an industrial/agricultural source (pre-consumer or post-industrial).*

**(OR)****❖ Option 2: Whole Building Life Cycle Analysis****Credit Points: 4**

Perform whole building Life Cycle Analysis (LCA) to estimate carbon emissions as per ISO standard 14040, and report the following for the overall built-up area of the project:

- Embodied carbon in kg CO<sub>2</sub>e per square meter



- Operational carbon in kg CO<sub>2</sub>e per year considering a minimum building lifespan of 50 years.

Analyze the Embodied Carbon emissions of the proposed design and identify the major contributors – stagewise, building elements, materials etc.

LCA System Boundary	Credit Points
Building Envelope & Structure	2
Whole Building (Envelope, Structure, Interiors, MEP)	4

**Notes:**

- *Embodied carbon is the result of supply chain (transport), extraction, processing, and manufacturing of building materials, prior to construction and during construction or renovation activities.*
- *Operational carbon is from the use of energy, materials and generation of waste during building operations and renovations.*
- *The LCA shall be carried out using a standard recognized software tool.*
- *The project team shall use Life Cycle Analysis (LCA) tools to calculate the embodied carbon of each material considering embodied carbon of the respective materials and embodied carbon resulting from transportation from the manufacturing plant to the project site.*
- *The proposed case embodied carbon (in kg of CO<sub>2</sub>e per square meter) shall be calculated considering all the proposed civil materials as per the Bill of Materials (BOM).*
- *The embodied carbon of respective materials can be sourced from Environmental Protection Declarations (EPDs) or Eco-labelling programmes such as GreenPro or equivalent. Where this is not available, the LCA should use third-party (independently) verified, or peer-reviewed carbon factors to ISO 14067, integrated into software databases.*
- *Carbon owing to material transportation from manufacturing plant to project site shall also be considered while calculating the embodied carbon for the respective material.*

**Exemplary Performance:**

The credit is not eligible for exemplary performance.



## **Documentation Required:**

### **Precertification**

#### **Local Materials:**

- i. Narrative describing the strategies proposed to source local materials. The narrative shall also include a tentative list of local materials with manufacturer's name, specifying approximate distance from the project site to the place of manufacturing unit.
- ii. Tentative calculations indicating the local materials sourced (in terms of cost) to the total materials cost of the project, in percentage.

#### **Materials with Recycled Content:**

- i. Narrative describing the strategies proposed to source materials with recycled content. Along with a tentative list of materials specifying recycled content, with the manufacturer's name.
- ii. Tentative calculations indicating the materials with recycled content (in terms of cost) to the total materials cost of the project, in percentage.
- iii. Manufacturer letters/ cut-sheets/ brochures indicating the recycled content in the materials. (Optional)

#### **Whole Building Life Cycle Analysis:**

- i. Drawings of the proposed design
- ii. Bill of Quantities of proposed design (architecture and civil).
- iii. Detailed input materials report and detailed LCA output report of proposed design.
- iv. Supporting documentation indicating the embodied carbon of the materials used in the proposed design (e.g. EPD).
- v. Transport details (like distance, mode of transport and fuel type) with supporting documents.
- vi. Manufacturer brochure/ Technical datasheets of proposed materials (indicating recycled content etc).

### **Certification**

#### **Local Materials:**

- i. Narrative describing the strategies implemented to source local materials. The narrative should also include the list of local materials with manufacturer's name, specifying approximate distance from the project site to the place of manufacturing unit.
- ii. Calculations indicating the local materials sourced (in terms of cost) to the total materials cost of the project, in percentage.



- iii. Manufacturer letters indicating the distance from the project site to the place of manufacturing unit.

**Materials with Recycled Content:**

- i. Narrative describing the strategies implemented to source materials with recycled content. The narrative should also include the list of materials specifying recycled content, with manufacturer name.
- ii. Calculations indicating the materials with recycled content (in terms of cost) to the total materials cost of the project, in percentage.
- iii. Project specific Manufacturer letters/ cut-sheets/ brochures indicating the recycled content in the materials sourced.

**Whole Building Life Cycle Analysis:**

- i. Drawings of the proposed design
- ii. Bill of Quantities of proposed design (architecture and civil).
- iii. Detailed input materials report and detailed LCA output report of proposed design.
- iv. Supporting documentation indicating the embodied carbon of the materials used in the proposed design (e.g. EPD).
- v. Transport details (like distance, mode of transport and fuel type) with supporting documents.
- vi. Manufacturer brochure/ Technical datasheets of proposed materials (indicating recycled content etc).
- vii. Purchase invoice of the building materials used in the project.
- viii. Photographs of the building materials used in the project.

**Green Power****CN Credit 2****New Hotel****Existing Hotel****Credit Points: 5****Intent:**

Encourage the use of renewable energy to reduce use of fossil fuel energy.

**Compliance Options:****❖ Option 1: On-site Renewable Energy****Credit Point: 1**

Install on-site renewable energy system to off-set fossil-fuel based energy consumption. Credit points are awarded based on the percentage of maximum admissible onsite Renewable Energy (RE) system installation.

The maximum admissible onsite RE installation shall be equal to the capacity limit imposed by the State Government/ local Authority or at least 100 Wp/sq.m. for exposed roof area, whichever is less.

Points are awarded as below:

% of maximum admissible onsite RE installation	Credit Points
100 %	1

**(OR)****❖ Option 2: Combination of On-site & Off-site Renewable Energy Credit Points: 5**

Demonstrate that on-site RE generation and (or) wheeling of off-site renewable energy replace grid energy use by at least 20% of total annual energy consumption of the project.

Points are awarded as below:

Renewable energy as a percentage of total annual energy consumption	Credit Points
20 %	1
40 %	2
60 %	3
80 %	4
90 %	5



### **Notes:**

- *Renewable energy sources include solar energy, wind power, biomass, etc.*
- *Solar hot water systems cannot be considered as power generation source and cannot be subtracted from the total annual energy consumption of the proposed case.*
- *The purchased Renewable Energy Certificates (RECs) will not be acceptable to show compliance.*
- *Type of renewable energy source shall be in compliance with the Ministry of New and Renewable Energy (MNRE), Government of India and respective State Regulatory Commissions.*
- *Off-site renewable energy so generated shall be counted only once.*
- *Hydro power projects with 25 MW or lesser size shall only be considered under this credit.*

### **Exemplary Performance**

This credit is not eligible for exemplary performance.

### **Documentation Required:**

#### **Precertification**

##### **Option 1: On-Site Renewable Energy**

- i. Narrative describing the on-site renewable energy systems proposed in the project
- ii. Conceptual drawing showing the location of the renewable energy systems
- iii. Feasibility study report with technical details of the renewable energy systems
- iv. Tentative calculations indicating the percentage of annual energy consumption met by proposed onsite renewable energy generation

##### **Option 2: Combination of On-site & Off-site Renewable Energy**

- i. Narrative describing the on-site renewable energy systems / off-site renewable energy systems proposed in the project
- ii. Conceptual drawing showing the location of the renewable energy systems
- iii. Power Purchase Agreement signed between the project owner/ developer and the green power developer (Or) Extract copy from Organization policy/ annual report, signed by the top management, highlighting the organization's policy on off-site renewable energy
- iv. Tentative calculations indicating the total annual energy generation from the on-site & off-site renewable energy systems (kWh) to the total annual energy consumption (kWh) of the hotel
- v. Feasibility study report with technical details of the on-site & off-site renewable energy systems





### **Certification**

#### **Option 1: On-Site Renewable Energy**

- i. Narrative describing the installed renewable energy systems, along with the technical details
- ii. Drawing showing the location of installed renewable energy systems
- iii. Calculations indicating the percentage of annual energy consumption met by onsite renewable energy generation
- iv. Purchase invoice of the on-site renewable energy system installed
- v. Photographs showing the renewable energy systems

#### **Option 2: Combination of On-site & Off-site Renewable Energy**

- i. Narrative describing the on-site renewable energy systems / off-site renewable energy systems proposed in the project
- ii. Drawing showing the location of the renewable energy systems
- iii. Power Purchase Agreement signed between the project owner/ developer and the green power developer
- iv. Calculations indicating the total annual energy generation from the on-site & off-site renewable energy systems (kWh) to the total annual energy consumption (kWh) of the hotel
- v. Purchase invoice of the on-site renewable energy system installed
- vi. Photographs showing the renewable energy systems



## Promotion of Local Economy

**New Hotel**
**Existing Hotel**
**CN Credit 3**
**Credit Points: 2**

### Intent:

Encourage local procurement of goods and services thereby strengthening the local economy.

### Compliance Options:

#### ❖ Option 1: Local Employment

**Credit Point: 1**

Demonstrate that the hotel employs at least 50% of its workforce from the local area, as detailed in the table below.

Location	Distance Criterion
Hotels in hilly areas, arid and semi-arid areas	150 km radius
All other Hotels	100 km radius

(AND/OR)

#### ❖ Option 2: Local Procurement

**Credit Point: 1**

Demonstrate that the hotel purchases 50% of food products (by weight/cost) locally, as detailed in the table below.

Location	Distance Criterion
Hotels in hilly areas, arid and semi-arid areas	200 km radius
All other Hotels	50 km radius

### Exemplary Performance:

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if at least 75% of employees working in the hotel are locals or 75% of food products are purchased locally.



## **Documentation Required:**

### **Precertification**

#### **Option 1: Local Employment**

- i. Narrative describing the measures adopted by the hotel to promote the local economy through employment.
- ii. Tentative calculations indicating the proposed percentage of hotel employees to be recruited locally.
- iii. Declaration letter from the project owner/ HR stating the percentage of employees to be recruited locally.

#### **Option 2: Local Procurement**

- i. Narrative describing the measures adopted by the hotel to promote the local economy through procurement.
- ii. Tentative calculations indicating the proposed percentage of food products (by cost/weight) to be purchased locally.
- iii. Declaration letter from the project owner stating the percentage of food products (by cost/weight) to be purchased locally.

### **Certification**

#### **Option 1: Local Employment**

- i. Narrative describing the measures adopted by the hotel to promote the local economy through employment.
- ii. Calculations indicating the proposed percentage of hotel employees recruited locally.
- iii. Summary of employee records with permanent residence details.

#### **Option 2: Local Procurement**

- i. Narrative describing the measures adopted by the hotel to promote the local economy through procurement.
- ii. Calculations indicating the proposed percentage of food products (by cost/weight) purchased locally.
- iii. Aerial maps indicating the distance of sourcing for food products.
- iv. Purchase invoice of the food products purchased.



## Sustainable Transportation

<b>New Hotel</b>	<b>Existing Hotel</b>
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**CN Credit 4**
**Credit Points: 2**

### Intent:

Encourage use of eco friendly transport, to reduce associated carbon emissions.

### Compliance Options:

Demonstrate the following measures: (1 Credit Point for each measure, maximum 2 Credit Points)

#### ❖ Option 1: Public Transport

**Credit Point: 1**

Provide access to a public transportation facility (bus-stop/ intra-city railway station), within 800 meters walking distance from the hotel and display information regarding the same at the hotel lobby.

**(AND/OR)**

#### ❖ Option 2: Low Emitting Vehicles

**Credit Point: 1**

Operate or have a contract in place for low-emitting vehicles, such as electric or CNG-powered vehicles, for hotel operations which include:

- Guest transportation services catering to at least 5% of guests. (e.g., airport pickup/drop, sightseeing, or in-city travel)

(OR)

- Hotel logistics and service vehicles (e.g., housekeeping, laundry, and goods movement)

**(AND/OR)**

#### ❖ Option 3: Electric Vehicle Charging Infrastructure

**Credit Point: 1**

Provide Electric Vehicle Charging Infrastructure (EVCI) within the site, catering to at least 5% of the total parking capacity (excluding visitor parking).

### Exemplary Performance:

This credit is not eligible for exemplary performance.



## **Documentation Required:**

### **Precertification**

#### **Option 1: Public Transport**

- i. Site vicinity map (with scale) highlighting the location of intra-city railway station (or) a bus-stop, within 800 meters from the campus entrance(s). Also, show pedestrian access from the entrance(s) to the public transport facility
- ii. Photographs showing the intra-city railway station (or) a bus-stop. (Optional)

#### **Option 2: Low Emitting Vehicles**

- i. Narrative describing the strategy adopted by the hotel for operating low emitting vehicles for guest transportation.
- ii. Details of logistics and service vehicles to be operated for the hotel.
- iii. Draft copy of contract agreement that will be signed between the project owner and the transportation service provider. (as applicable)
- iv. Tentative calculations indicating the percentage of occupants catered through low emitting vehicles.
- v. Declaration from owner stating the percentage of occupants catered through low emitting vehicles.
- vi. Declaration from owner confirming that low emitting vehicles will be operated for hotel logistics and service vehicles

#### **Option 3: Charging Infrastructure for Electric Vehicles**

- i. Conceptual parking layouts highlighting the location of preferred parking spaces with electric charging facilities, for electric vehicles.
- ii. Tentative calculations indicating the percentage of parking capacity proposed to be provided with electric charging points to demonstrate credit compliance
- iii. Manufacturer cut sheet of the proposed electric charging facility

### **Certification**

#### **Option 1: Public Transport**

- i. Site vicinity map (with scale) highlighting the location of intra-city railway station (or) a bus-stop, within 800 meters from the campus entrance(s). Also, show pedestrian access from the entrance(s) to the public transport facility
- ii. Photographs showing the intra-city railway station (or) a bus-stop

#### **Option 2: Shuttle Services**

- i. Narrative describing the strategy adopted by the hotel for operating low emitting vehicles for guest transportation.
- ii. Copy of contract agreement signed between the project owner and the transportation service provider (as applicable)



- iii. Details of logistics and service vehicles being operated for the hotel.
- iv. Calculations indicating the percentage of occupants catered through low emitting vehicles
- v. Purchase invoice of the low emitting vehicles used in the hotel.
- vi. Photographs of the low emitting vehicles used in the hotel.

### **Option 3: Charging Infrastructure for Electric Vehicles**

- i. Parking layouts highlighting the location of preferred parking spaces with electric charging facilities, for electric vehicles.
- ii. Calculations indicating the percentage of parking capacity provided with electric charging points to demonstrate credit compliance.
- iii. Manufacturer cut sheet of the installed electric charging facility
- iv. Purchase invoice of the electric charging facility installed in the project, indicating the type and number of charging points provided.
- v. Photographs showing electric charging facilities with signages, provided in the project.

**GHG Inventorisation and Roadmap****New Hotel****Existing Hotel****CN Credit 5****Credit Points: 2****Intent:**

To encourage organizations to demonstrate leadership in climate action by systematically measuring, managing, and reducing greenhouse gas (GHG) emissions across operations and the value chain.

Ensure organizations align with Net Zero goals, establish a science-based decarbonization roadmap, and publicly disclose progress to enhance accountability and transparency.

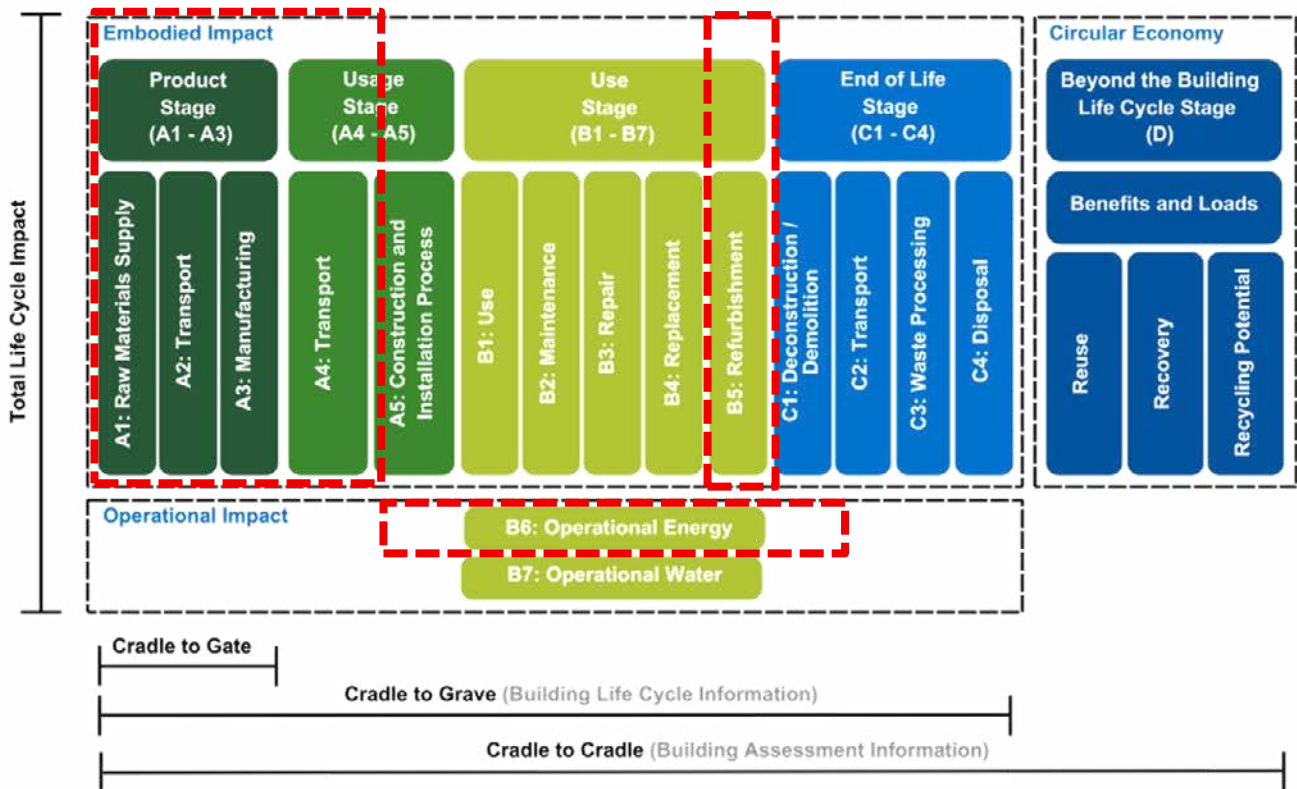
**Compliance Options:****❖ Option 1: Decarbonization at Project Level****Credit Points: 2***(Applicable for New Hotels)*

Perform whole building Life Cycle Analysis (LCA) to estimate carbon emissions as per ISO standard 14040, and report the following for the overall built-up area of the project:

- Embodied carbon in kg CO<sub>2</sub>e per square meter of Built up area (kg CO<sub>2</sub>e/m<sup>2</sup>BUA)
- Operational carbon in kg CO<sub>2</sub>e per year considering a minimum building lifespan 50 years.

**Notes:**

- *LCA Study Period: 50 years*
- *Life Cycle Stages to be included:*
  - **Module A1–A3:** Product stage (raw material supply, transport, manufacturing),
  - **Module A4:** Construction process stage (transport to site)
  - **Module B4:** Replacement
  - **Module B6:** Operational Energy
- *The proposed case greenhouse gas (GHG) emissions (in kg of CO<sub>2</sub>e per square meter of built-up area) shall be calculated considering all the proposed civil materials as per the Bill of Quantities (BOQ).*
- *Life Cycle Embodied carbon/GHG emissions can be considered from CN NR 1. The project team under these criteria needs to further calculate the GHG emissions due to replacement of materials/products within study period of building life (Module B4) and the building's total operational GHG emission from consumption of energy (Module B6) under this credit.*
- *Operational carbon (Module B6) shall include electricity and fuel consumption (such as petrol, diesel, CNG, LPG etc.) in building operations and its associated environment within the project boundary.*
- *The LCA shall be carried out using a standard recognised software tool with 'data-source' defined in CN CR 1.*



### Methodology for Roadmap:

1. Goal and Scope
  - Define what the decarbonization plan intends to achieve and its boundaries.
  - Set climate goals (e.g., Net Zero by 2040)
2. Decarbonization Strategy & Action Plan
 

Based on the LCA, develop targeted carbon reduction interventions. The strategies can include:

  - Renewable energy integration
  - Low-carbon materials for renovation/ operation or circular economy approaches
  - Operational efficiency, green transport, etc.

### Notes:

- Refer the building elements and data source from CN Credit 1

(OR)

### ❖ Option 2: Decarbonization at Organisation Level

**Credit Points: 2**

*(Applicable for Existing Hotels)*

Account GHG emissions pertaining to Direct (Scope-1) and Indirect (Scope-2 & Scope-3) emissions in consistence with ISO 14064-1: 2018





- Provide a detailed report indicating the baseline carbon emissions and the strategies taken to reduce the carbon footprint from Scope-1, Scope-2 & Scope-3 emissions year-on-year.
- Provide a detailed action plan with strategies to reduce the carbon footprint from Scope-1, Scope-2 & Scope-3 emissions year-on-year to achieve the target.

**Notes:**

- *The mitigation measures shall include, but not limited to operational improvement, resource efficiency, mode of transport, switch to cleaner fuel, on-site renewable energy, fleet optimization, technology upgradation, carbon offsets etc as applicable*

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:**

**Precertification**

**Option 1: Decarbonization at Project Level**

- i. Narrative describing the approach adopted for Whole Building Life Cycle Analysis (LCA) and key assumptions considered.
- ii. LCA methodology report in accordance with ISO 14040, defining study scope, boundaries, and life cycle stages (Modules A1–A3, A4, B4, B6).
- iii. Bill of Quantities (BOQ) indicating all major building materials used in the project.
- iv. Summary table showing embodied and operational carbon emissions (kg CO<sub>2</sub>e/m<sup>2</sup> BUA).
- v. Details of software tool used for LCA with reference to data sources
- vi. Decarbonisation roadmap outlining targets, key strategies, and intended interventions (renewable energy, efficiency, materials, etc.).

**Certification**

**Option 1: Decarbonisation at Project Level**

- i. Final LCA report demonstrating embodied and operational carbon emissions in accordance with ISO 14040 standards.
- ii. Supporting BOQ and material data used for LCA inputs.
- iii. Calculation sheet showing total GHG emissions (kg CO<sub>2</sub>e/m<sup>2</sup>) and annual operational GHG (kg CO<sub>2</sub>e/year).
- iv. Details of software tool used for LCA with reference to data sources
- v. Copy of decarbonisation roadmap highlighting targeted reduction measures, timelines, and implementation plan.

**Option 2: Decarbonisation at Organization Level**

- i. GHG Accounting report verified by third-party with the following information - boundary assumptions, type of control, type of GHGs, GHG emission statement (including Scope 1, 2 & 3),
- ii. Summary of year-on-year emission reduction (absolute and intensity metrics) along with details of strategies taken to reduce the carbon footprint
- iii. Decarbonisation roadmap with clear strategies, action plan, and monitoring framework.

# ENHANCED GUEST EXPERIENCE

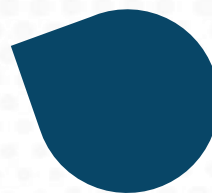
ENVIRONMENT FOR  
GUEST WELLBEING



HEALTHY FOOD AND  
BEVERAGES



GREEN  
HOUSEKEEPING



INNOVATION AND  
EXEMPLARY PERFORMANCE





# ENVIRONMENT FOR GUEST WELLBEING



## Minimum Fresh Air Ventilation

New Hotel

Existing Hotel

### EGW Mandatory Requirement 1

#### Intent:

Provide adequate outdoor air ventilation, so as to avoid pollutants affecting indoor air quality.

#### Compliance Options:

##### ❖ Option 1: Mechanically Ventilated Spaces

Demonstrate that the fresh air ventilation in all regularly occupied areas to meet the minimum ventilation rates, as prescribed in ASHRAE Standard 62.1 – 2022

#### Notes:

- *Projects with unitary air conditioning system catering less than 10% of the total regularly occupied area can show compliance for minimum fresh air ventilation through the criteria defined for Non Air-conditioned Spaces.*
- *Openings for fresh air intake shall be located at least 7.6 m away from exhaust stacks, parking areas, cooling tower and/or any other polluting sources.*

(AND/OR)

##### ❖ Case B: Non Air-conditioned Spaces

Provide operable windows and / or Doors to the exteriors, in all regularly occupied areas, such that the operable area is designed to meet the criteria as outlined in the Table below:

**Design Criteria for Openable Windows and / or Doors to the Exteriors**

Category	Percentage of Openable Area to the Total Carpet Area
Regularly Occupied Area ( < 100 sq.)	8%
Regularly Occupied Area ( > 100 sq.m)	12%

**Notes:**

- For sliding windows/ doors, only openable area to the exteriors shall be considered in calculations.
- Windows / doors should not have any obstruction within 2 m from the exterior surface.
- Shading devices can be excluded.
- Openings for fresh air intake shall be located at least 7.6 m away from exhaust stacks, parking areas, cooling tower and/or any other polluting sources.

**General Notes:**

- Regularly occupied areas are those where guests, staff, or visitors spend significant time as part of their stay or work, regardless of the number of days occupied in a year. These areas shall include only enclosed spaces.
- Regularly occupied areas include guest rooms, lobbies, restaurants, meeting and banquet halls, reception areas, lounges, spas, gyms, and staff workstations.
- Non-regularly occupied areas include toilets, store rooms etc.,

**Documentation Required:****Precertification****Case A: Mechanically Ventilated Spaces**

- Narrative describing the proposed ventilation design and strategy.
- Tentative calculations of the fresh air intake volumes in all regularly occupied spaces, for each zone, as per Ventilation Rate Procedure prescribed in ASHRAE Standard 62.1 - 2022
- Conceptual HVAC layout indicating fresh air supplied to each regular occupied areas highlighting the location of AHU's, TFA's and fresh air intake louvers.
- Specification sheets of the proposed fresh air ventilation system.

**Case B: Non Air-conditioned Spaces**

- Narrative describing the proposed ventilation design and strategy
- Tentative floor plans with window and door schedule.
- Building elevations showing operable windows and doors.
- Tentative calculations indicating the openable area of windows and doors to the carpet area, for each of the regularly occupied spaces in percentage.

**Certification****Case A: Mechanically Ventilated Spaces**

- Narrative describing the ventilation design and strategy adopted.
- Calculations of the fresh air intake volumes in all regularly occupied spaces, for each zone, as per Ventilation Rate Procedure prescribed in ASHRAE Standard 62.1 – 2022
- HVAC layout indicating fresh air supplied to each regular occupied areas highlighting the location of AHU's, TFA's and fresh air intake louvers.
- Specification sheets of the fresh air ventilation system installed.
- Purchase invoice of the fresh air ventilation system installed.



- vi. Photographs of the fresh air ventilation system and fresh air intakes provided.

**Case B: Non Air-conditioned Spaces**

- i. Narrative describing the natural ventilation strategy adopted.
- ii. Floor plans with window and door schedule.
- iii. Building elevations showing operable windows and doors.
- iv. Calculations indicating the openable area of windows and doors to the carpet area, for each of the regularly occupied spaces in percentage.
- v. Photographs showing the operable windows and doors to the exteriors, in all the regularly occupied areas.



## Tobacco Smoke Control

New Hotel	Existing Hotel
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### EGW Mandatory Requirement 2

#### Intent:

To minimize exposure of non-smokers to the adverse health impacts arising due to passive smoking in the building.

#### Compliance Options:

##### ❖ Option 1: No Smoking

Demonstrate that smoking is prohibited in the project and is in accordance with the regulations of Ministry of Health & Family Welfare, Government of India.

(OR)

##### ❖ Option 2: Outdoor Smoking Area

In case the project has assigned outdoor smoking areas, demonstrate that such areas are located at a minimum of 7.6 meters from all outdoor air intakes (entrance doors, window openings etc.).

(OR)

##### ❖ Option 3: Designated Smoking Rooms

Alternately, compliance can be shown through designated smoking rooms which capture and remove tobacco smoke from the building.

#### Notes:

- Compliance can be shown through designated smoking rooms which capture and remove tobacco smoke from the building. At a minimum, the smoking room must be directly exhausted to the outdoors, away from air intakes and building entry paths, with no recirculation of tobacco smoke containing air to nonsmoking areas and enclosed with impermeable deck-to-deck partitions.
- The smoking room shall be completely sealed.
- The conditioned air entry into the smoking zone shall not return or be transferred to the air-handling units. This air shall be completely exhausted.
- The exhaust air louver / duct should be located at least 7.6 meters away from building entry or fresh air intakes.
- The smoking room must be operated at a negative pressure, compared with the surrounding spaces, of at least an average of 5 Pascals (Pa) (0.5 mm of water gauge) and a minimum of 1 Pa (0.025 mm of water gauge) when the doors to the smoking rooms are closed.





## **Documentation Required:**

### **Precertification**

#### **Option 1: No Smoking**

- i. Copy of organization's policy on 'no smoking' (or) Declaration letter from the project owner/ developer stating that 'smoking' will be prohibited in the hotel
- ii. Narrative describing the strategies proposed (e.g. signages, posters, brochures, hotel guidelines, etc.,) to communicate 'no smoking policy' to all the hotel occupants

#### **Option 2: Outdoor Smoking Area**

- i. Copy of organization's policy highlighting that smoking is allowed in designated outdoor smoking areas only
- ii. Narrative describing the strategies proposed (eg. signages, posters, brochures, hotel guidelines, etc.,) to communicate 'outdoor smoking areas' to all the hotel occupants

#### **Option 3: Designated Smoking Rooms**

- i. Copy of organization's policy highlighting that smoking is allowed in designated smoking rooms only
- ii. Narrative describing the strategies proposed (eg. signages, posters, brochures, hotel guidelines, etc.,) to communicate 'designated smoking rooms' to all the hotel occupants
- iii. Provide floor/ site plans and details of ventilation system indicating separate exhaust ducting of the designated smoking spaces along with details of sealed space.

### **Certification**

#### **Option 1: No Smoking**

- i. Copy of organization's policy on 'no smoking' (or) Declaration letter from the project owner/ developer stating that 'smoking' will be prohibited in the hotel
- ii. Narrative describing the strategies adopted (e.g. signages, posters, brochures, hotel guidelines, etc.,) to communicate 'no smoking policy' to all the hotel occupants
- iii. Photographs showing 'no smoking' signages installed in the hotel

#### **Option 2: Outdoor Smoking Area**

- i. Copy of organization's policy highlighting that smoking is allowed in designated outdoor smoking areas only
- ii. Narrative describing the strategies adopted (eg. signages, posters, brochures, hotel guidelines, etc.,) to communicate 'outdoor smoking areas' to all the hotel occupants
- iii. Photographs of the designated outdoor smoking areas showing the signages

**Option 3: Designated Smoking Rooms**

- i. Copy of organization's policy highlighting that smoking is allowed in designated smoking rooms only
- ii. Narrative describing the strategies proposed (eg. signages, posters, brochures, hotel guidelines, etc.) to communicate 'designated smoking rooms' to all the hotel occupants
- iii. Provide floor/ site plans and details of ventilation system indicating separate exhaust ducting of the designated smoking spaces along with details of sealed space.
- iv. Photographs of the designated smoking rooms showing the signages



## Daylighting

New Hotel

Existing Hotel

### EGW Credit 1

Credit Points: 1

#### Intent:

Ensure connectivity between the interior and the exterior environment, by providing adequate daylighting.

#### Compliance Options:

The project can choose any one of the following options to show compliance:

##### ❖ Option 1: Simulation Approach

Credit Point: 1

Using daylight simulation based on the Useful Daylight Illuminance (UDI) approach, demonstrate that at least 50% of the regularly occupied areas maintain illuminance values within the range of 100 lux to 2,000 lux for at least 90% of the potential daylight hours.

(OR)

##### ❖ Option 2: Measurement Approach

Credit Point: 1

Demonstrate through daylight illuminance measurement that 50% of the regularly occupied spaces in the building achieve daylight illuminance levels for a minimum of 100 Lux. Areas with 2,000 Lux or more daylight illumination levels shall be not considered.

Measurements shall be taken after installation of furniture, equipment & systems at work plane height at 9 am, 12 pm, and 3 pm, on a 10 foot square grid. To show compliance, consider the average of the measurements taken at 9 am, 12 pm, and 3 pm.

#### Notes:

- Regularly occupied areas include guest rooms, lobbies, restaurants, meeting and banquet halls, reception areas, lounges, spas, gyms, and staff workstations.
- Areas with audio-visual facilities such as auditoriums, conference rooms, etc., can be excluded from this credit calculation, with justification and supporting documents.
- Non-regularly occupied areas include toilets, store rooms, etc.,

#### Exemplary Performance:

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if at least 75% of the regularly occupied spaces in the building maintain the required daylight illuminance levels.

**Documentation Required:****Precertification****Option 1: Simulation Approach**

- i. Draft daylight simulation report with sky conditions (such as date & month; time; ambient Lux levels) and wall, floor & roof reflectance properties, for all the regularly occupied spaces in the building. During simulation, consider shading devices and 'shadow effect' of adjacent buildings.
- ii. Site/ master plan showing the building.
- iii. Conceptual floor/ roof plans with window and skylight schedule.
- iv. Manufacturer brochure/ cut-sheet/ letter of the glass proposed in the project showing the Visual Light Transmittance (VLT)

**Certification****Option 1: Simulation Approach**

- i. Daylight simulation report with sky conditions (such as date & month; time; ambient Lux levels) and wall, floor & roof reflectance properties, for all the regularly spaces in the building. During simulation, consider shading devices and 'shadow effect' of adjacent buildings.
- ii. Site/ master plan showing the building.
- iii. Floor/ roof plans with window and skylight schedule.
- iv. Manufacturer brochure/ cut-sheet/ letter of the glass installed showing the Visual Light Transmittance (VLT).
- v. Purchase invoice of the glass used in the project.
- vi. Photographs showing the building elevations (all sides) and interiors spaces at different floors.

**Option 2: Measurement Approach**

- i. Daylight analysis report indicating daylight illuminance levels measured at work plane height, for all the regularly occupied spaces in the building.
- ii. Site/ master plan showing the building.
- iii. Floor/ roof plans with window and skylight schedule.
- iv. Manufacturer brochure/ cut-sheet/ letter of the glass installed showing the Visual Light Transmittance (VLT).
- v. Photographs showing the building elevations (all sides) and interiors spaces at different floors.

**Connectivity with Nature****New Hotel****Existing Hotel****EGW Credit 2****Credit Points:1****Intent:**

Ensure connectivity between the indoor and the outdoor environment, by providing adequate views.

**Compliance Options:**

Achieve direct line of sight to vision glazing between 0.9 meters (3 feet) and 2.1 meters (7 feet) above the finished floor level, for occupants in at least 90% of guest rooms and 75% of other regularly occupied spaces. Also, the project shall comply with the following criteria:

- The occupants must not have any obstruction of views at least 8 meters (26.2 feet) from the exterior vision glazing.  
(OR)
- The building occupants must have access either to sky or flora & fauna or both.

**Notes:**

- *Regularly occupied areas include guest rooms, lobbies, restaurants, meeting and banquet halls, reception areas, lounges, spas, gyms, and staff workstations.*
- *Areas with audio-visual facilities such as auditoriums, conference rooms, etc., can be excluded from this credit calculation, with justification and supporting documents.*
- *Non-regularly occupied areas include toilets, store rooms, etc.,*

**Exemplary Performance:**

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if more than 95% of the regularly occupied spaces achieve direct line of sight to vision glazing.

**Documentation Required:****Precertification**

- i. Site/ master plan showing the building(s).
- ii. Tentative furniture layouts of all floors.
- iii. Tentative sectional drawings indicating the direct line of sight to vision glazing, for each typical floor.
- iv. Tentative calculations (floor-wise) indicating the regularly occupied spaces having access to outdoor views to the total regularly occupied spaces.

**Certification**

- i. Site/ master plan showing the building.
- ii. Furniture layouts of all floors.
- iii. Sectional drawings indicating the direct line of sight to vision glazing, for each typical floor.



- iv. Calculations (floor-wise) indicating the regularly occupied spaces having access to outdoor views to the total regularly occupied spaces.
- v. Photographs showing the outdoor views, for all the floors.

**Low Emitting Materials****New Hotel****Existing Hotel****EGW Credit 3****Credit Point: 1****Intent:**

Encourage use of materials with low VOC emissions, to reduce adverse health impacts on occupants.

**Compliance Options:****❖ Option 1: Paints & Coatings****Credit Point:1**

Use paints and coatings (including primers) with low or no VOC content (as specified in Table given below) for 95% of interior wall and ceiling surface area.

Type of Paints & Coatings	VOC Limit (g/L less water)
Interior Non-flat (Glossy)	150
Interior Flat (Mat)	50
Exterior Flat (Mat)	200
Exterior Non-Flat (Mat)	100
Metallic/ Anti-corrosive/ Anti-rust	250
Clear Wood Finish: Varnish	350
Clear Wood Finish: Lacquer	550
Floor Coatings	100

**(AND)****❖ Adhesives & Sealants****Credit Point:1**

For adhesives used within the interiors, ensure that the VOC content does not exceed the limits as specified in Table given below.

Type of Adhesives	VOC Limit (g/L less water)
Glazing adhesives	100
Ceramic tile adhesives	65
Drywall and panel adhesives	50
Wood substrata adhesives	30



Wood flooring adhesives	100
HVAC duct insulation	350
Indoor Carpet adhesives	50
Multipurpose construction adhesives	70

### **Notes:**

- *Volatile organic compounds (VOCs) are carbon compounds that participate in atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate). The compounds vaporize at normal room temperatures.*
- *Paints & coatings and Adhesives & sealants that are certified by CII under Green Product Certification Programme (GreenPro) or by a third-party agency approved by IGBC can be used by the project to show compliance.*
- *If the project has used small quantities of non-complying paints & coatings and / or adhesives, a VOC budget can be calculated to demonstrate that the weighted average VOC of all products (based on litres of each applied) is below the allowed limit, by each type.*

### **Exemplary Performance:**

This credit is not eligible for exemplary performance

### **Documentation Required:**

#### **Precertification**

#### **Paints & Coatings**

- Declaration letter from the project owner/ developer stating that the project will use low or no VOC content paints & coatings.
- List of proposed low or no VOC content paints & coatings (with make & model) proposed in the building interiors, along with the VOC content (in g/L, less water).
- Manufacturer cut-sheets/ brochures/ Materials Safety Data Sheet (MSDS) indicating the VOC content (in g/l, less water) of the paints & coatings proposed to be sourced.

#### **Adhesives & Sealants**

- Declaration letter from the project owner/ developer stating that the project will use low or no VOC content adhesives.
- List of the proposed low or no VOC content adhesives (with make & model) proposed in the building interiors, along with the VOC content (in g/L, less water).





- iii. Manufacturer cut-sheets/ brochures/ Materials Safety Data Sheet (MSDS) indicating the VOC content (in g/L, less water) of the adhesives proposed to be sourced.

### **Certification**

#### **Paints & Coatings**

- i. List of low or no VOC content paints & coatings (make & model) used in the building interiors, along with the VOC content (in g/L, less water).
- ii. Test certificate (or) Manufacturer cut-sheets/ brochures/ Materials Safety Data Sheet (MSDS), indicating the VOC content (in g/L, less water) of the paints & coatings sourced.
- iii. Purchase invoice of the paints and coatings used in the project

#### **Adhesives & Sealants**

- i. List of low or no VOC content adhesives (make & model) used in the building interiors, along with the VOC content (in g/L, less water).
- ii. Test certificate (or) Manufacturer cut-sheets/ brochures/ Materials Safety Data Sheet (MSDS), indicating the VOC content (in g/L, less water) of the adhesives sourced.
- iii. Purchase invoice of the adhesives and sealants used in the project



## Wellbeing Facilities

New Hotel	Existing Hotel
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### EGW Credit 4

**Credit Points: 3**

#### Intent:

To promote holistic guest and staff wellness through design and facilities that support physical, mental, and spiritual well-being within the hotel environment.

#### Compliance Options:

##### ❖ Option 1: Wellness Suite

**Credit Point: 1**

Design 5% of rooms as dedicated Wellness-Focused Rooms with soundproofing, circadian lighting, ergonomic bedding, air purification, temperature control and aromatherapy.

**(AND/OR)**

##### ❖ Option 2: Physical Wellbeing Facilities

**Credit Point: 1**

Provide facilities to promote physical fitness of the occupants (one point for two facilities):

- Bicycle facilities with cycling tracks
- Walking trails through landscaped gardens
- Gym
- Indoor games
- Swimming pool

**(AND/OR)**

##### ❖ Option 3: Spiritual Wellbeing Facilities

**Credit Point: 1**

Provide designated spaces for relaxation to promote spiritual well-being of guests (one point for two facilities).

- Yoga/Meditation zones
- Zen Garden
- Water features
- Sensory Gardens
- Healing therapies

**Exemplary Performance:**

The project is eligible for exemplary performance under INN Credit 1 - Innovation and Exemplary Performance, if at least 10% of rooms are provided as wellness suites (or) if at least four physical well-being facilities are provided (or) if at least four spiritual well-being facilities are provided.

**Documentation Required:****Precertification****Option 1: Wellness Suite**

- i. Narrative describing the proposed design strategy for wellness focused suite, highlighting features that promote occupant comfort and well-being.
- ii. Tentative calculations indicating the total number of wellness focused suite to the total number of rooms
- iii. Tentative layout plans showing designated wellness-focused rooms and proposed features.
- iv. Technical specifications of proposed wellness-related features.
- v. Declaration confirming commitment to implement and maintain wellness features in suites.

**Option 2: Physical Wellbeing Facilities**

- i. Narrative describing the physical wellbeing facilities proposed within the hotel premises.
- ii. Tentative layout highlighting the location of proposed for physical wellbeing.
- iii. Declaration confirming commitment to provide and maintain physical wellbeing amenities.

**Option 3: Spiritual Wellbeing Facilities**

- i. Narrative describing the spiritual wellness facilities proposed within the hotel premises.
- ii. Tentative layout highlighting the proposed spaces for spiritual wellbeing.
- iii. Declaration confirming commitment to establish and maintain spiritual wellness facilities.

**Certification****Option 1: Wellness Suite**

- i. Narrative describing the proposed design strategy for wellness focused suite, highlighting features that promote occupant comfort and well-being.
- ii. Calculations indicating the total number of wellness focused suite to the total number of rooms
- iii. Layout plans showing designated wellness-focused rooms and incorporated features.
- iv. Technical specifications of installed wellness-related features.
- v. Photographs of wellness elements integrated in suites.

**Option 2: Physical Wellbeing Facilities**

- i. Narrative describing the physical well-being facilities provided within the hotel premises.
- ii. Layout highlighting the location of physical wellness amenities.
- iii. Photographs of facilities provided for physical wellbeing.

**Option 3: Spiritual Wellbeing Facilities**

- i. Narrative describing the spiritual wellness facilities incorporated in the hotel
- ii. Layout plan highlighting the dedicated spaces for spiritual wellbeing.
- iii. Photographs of dedicated spaces for spiritual wellbeing.

**Vernacular Art and Culture****New Hotel****Existing Hotel****EGW Credit 5****Credit Point: 1****Intent:**

To promote the use of local art, craft, and design elements that reflect the region's cultural heritage, thereby enhancing guest connection with the destination.

**Compliance Options:****❖ Option 1: Indigenous Art, Craft & Architecture****Credit Point: 1**

- Incorporate locally crafted furniture, décor elements, artworks, or sculptures that authentically represent the region's cultural heritage.
- Incorporate locally produced textiles such as handwoven rugs, upholstery, curtains, or bed linens featuring traditional patterns or weaving techniques.
- Apply vernacular materials or traditional construction techniques (e.g., bamboo, cane, terracotta, local stone) in interior or architectural features.

**(OR)****❖ Option 2: Local Culture & Experience****Credit Point: 1**

- Design guest rooms and common areas using themes, motifs, or narratives inspired by local culture, history, or heritage to strengthen guest connection with the destination
- Embed elements of local music, folklore, performing arts, or storytelling traditions within guest experiences or interior ambience to enhance cultural engagement.

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification**

- i. Narrative describing the measures proposed at the hotel
- ii. List of vernacular art and culture elements proposed for implementation in guest rooms and common areas.
- iii. Declaration confirming commitment to promote and incorporate vernacular art and culture as part of the hotel's design and development process.

**Certification**

- i. Narrative describing the measures implemented at the hotel
- ii. List of vernacular art and culture elements implemented in guest rooms and common areas.
- iii. Photographs and videos of the measures promoted by the hotel



## Inclusive Guest Experience

New Hotel	Existing Hotel
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### EGW Credit 6

### Credit Points:1

#### Intent:

To promote inclusivity by providing facilities that cater to the needs of all guests, including the differently abled and senior citizens, thereby enhancing guest wellbeing.

#### Compliance Options:

Provide at least one accessible guest room or 1% of total rooms (whichever is higher) with the following features:

- Barrier-free access from lobby to guest room.
- Door width: Minimum 900 mm; corridor width: Minimum 1200 mm.
- Turning radius: Minimum 1500 mm in room and bathroom.
- Accessible bathroom fittings: Grab bars, roll-in shower, lever handles, and accessible mirror and wash basin.
- Switches, sockets, and controls positioned 900–1200 mm above floor.
- Visual/auditory alarms for safety where applicable.
- Signage with tactile/Braille information.

#### Exemplary Performance:

This credit is not eligible for exemplary performance.

#### Documentation Required:

##### Precertification

- i. Narrative describing the measures proposed in the hotel for differently abled people and senior citizens
- ii. Tentative calculations indicating the total number of preferred rooms (for differently abled people and senior citizens) to the total number of rooms
- iii. Conceptual drawings highlighting the measures proposed for differently abled people and senior citizens

##### Certification

- i. Narrative describing the measures implemented in the hotel for differently abled people and senior citizens
- ii. Calculations indicating the total number of preferred rooms (for differently abled people and senior citizens) to the total number of rooms
- iii. Drawings highlighting the measures implemented for differently abled people and senior citizens.
- iv. Photographs showing all the measures implemented

**IEQ Monitoring and Management****New Hotel****Existing Hotel****EGW Credit 7****Credit Points: 3****Intent**

Encourage monitoring of indoor environmental quality, to ensure occupants' health and well-being

**Compliance Options:****❖ Option 1: IEQ Monitoring Systems****Credit Point: 1**

Provide a continuous IAQ monitoring system in densely occupied areas (meeting/conference/seminar halls) to measure and display real-time values for at least four (4) of the following comfort parameters:

- Relative Humidity (RH) & Temperature
- Particulate Matter (PM<sub>2.5</sub>)
- Particulate Matter (PM<sub>10</sub>)
- Carbon Dioxide (CO<sub>2</sub>)
- Total Volatile Organic Compounds (TVOCs)

**(OR)****❖ Option 2: Kitchen IAQ Monitoring****Credit Point: 1**

Provide a continuous IAQ monitoring system in kitchen to measure at least four (4) of the following parameters:

- Carbon Monoxide (CO)
- Carbon Dioxide (CO<sub>2</sub>)
- Particulate Matter (PM<sub>2.5</sub>)
- Particulate Matter (PM<sub>10</sub>)
- Nitrogen Oxides (NO<sub>x</sub>)
- Total Volatile Organic Compounds (TVOCs)

**(AND/OR)****❖ Option 2: Acoustic Comfort****Credit Points: 1**

Demonstrate appropriate acoustic design measures incorporated to ensure indoor noise levels do not exceed 40 dB(A) in guest rooms.



### **Exemplary Performance:**

This credit is not eligible for exemplary performance.

### **Documentation Required:**

#### **Precertification**

##### **Option 1: Continuous Monitoring Systems**

- i. Narrative describing the proposed IAQ monitoring system
- ii. Schematic layout highlighting tentative sensor locations in regularly occupied common areas
- iii. Manufacturer cutsheet of air quality monitoring systems proposed in the project.
- iv. Declaration confirming commitment to install, continuously monitor, and periodically calibrate IAQ sensors.

##### **Option 2: Kitchen IAQ Monitoring**

- i. Narrative describing the proposed IAQ monitoring system
- ii. Schematic layout highlighting tentative sensor locations in kitchens
- iii. Manufacturer cutsheet of air quality monitoring systems proposed in the project.
- iv. Declaration confirming commitment to install, continuously monitor, and

##### **Option 3: Acoustic Comfort**

- i. Narrative describing approach to acoustic design proposed in the project.
- ii. Declaration confirming implementation of acoustic measures as per the proposed strategy.

#### **Certification**

##### **Option 1: Continuous Monitoring Systems**

- i. Narrative describing the details of the IAQ monitoring system
- ii. Layout plan highlighting sensor installation locations in regularly occupied common areas
- iii. Air quality monitoring report highlighting air quality: PM 2.5, PM 10, CO2 etc
- iv. Manufacturer cutsheet of air quality monitoring systems used in the project.
- v. Photographs of the display boards for creating awareness amongst guests & visitors about the air quality.
- vi. Purchase invoice and photographs of the locations and air quality monitoring systems used in the project.

##### **Option 2: Kitchen IAQ Monitoring**

- i. Narrative describing the details of the IAQ monitoring system
- ii. Layout plan highlighting sensor installation locations in kitchens
- iii. Air quality monitoring report highlighting air quality parameters
- iv. Manufacturer cutsheet of air quality monitoring systems used in the project.





- v. Photographs of the display boards for creating awareness amongst guests & visitors about the air quality.
- vi. Purchase invoice and photographs of the locations and air quality monitoring systems used in the project.

**Option 2: Acoustic Comfort**

- i. Narrative describing approach to acoustic design adopted in the project.
- ii. Acoustic analysis report or noise level test report indicating measured dB(A) values in representative spaces
- iii. Photographs showing acoustic materials installed.



## Guest Comfort Feedback

New Hotel

Existing Hotel

### EGW Credit 8

Credit Points: 1

#### Intent:

To evaluate guest comfort through structured feedback and use insights to enhance indoor environmental quality and guest experience.

#### Compliance Options:

Conduct a guest comfort survey for comfort parameters (visual comfort, thermal comfort, acoustics comfort, olfactory comfort, and ergonomics) and demonstrate that at least 80% of guests are satisfied with the comfort parameters provided.

#### Exemplary Performance:

This credit is not eligible for exemplary performance.

#### Sample Survey Questions:

1. Please rate your satisfaction with the thermal comfort in your room during your stay.

Unsatisfactory	1	2	3	4	5	Satisfactory
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2. Please rate your satisfaction with the air quality and freshness in your room during your stay.

Unsatisfactory	1	2	3	4	5	Satisfactory
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3. Please rate your satisfaction with the noise levels and acoustic comfort in your room during stay

Unsatisfactory	1	2	3	4	5	Satisfactory
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4. Please rate your satisfaction with lighting quality and visual comfort in your room during stay

Unsatisfactory	1	2	3	4	5	Satisfactory
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5. Please rate your satisfaction with comfort and ergonomics of furniture and room layout.

Unsatisfactory	1	2	3	4	5	Satisfactory
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#### Documentation Required:

##### Precertification

- i. Narrative describing the methodology for conducting the survey and assessing guest satisfaction levels.



- ii. Draft copy of the guest comfort survey questionnaire covering visual, thermal, acoustic, olfactory, and ergonomic comfort parameters.
- iii. Declaration confirming the commitment to conduct periodic guest comfort surveys and use feedback for continual improvement.

**Certification**

- i. Narrative describing the methodology for conducting the survey and assessing guest satisfaction levels.
- ii. Copy of the guest comfort survey questionnaire covering visual, thermal, acoustic, olfactory, and ergonomic comfort parameters.
- iii. Survey responses or summary of results indicating the percentage of guest satisfaction for each parameter
- iv. Calculation indicating the total number of responses and the percentage of satisfied guests



## Green Education

New Hotel	Existing Hotel
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### EGW Credit 9

**Credit Points: 2**

#### Intent

To promote green education and participation in sustainability initiatives among hotel staff and guests, thereby fostering a culture of environmental responsibility and continuous improvement in green operations.

#### Compliance Options:

##### ❖ Option 1: Staff Education & Capacity Building:

**Credit Point: 1**

- Demonstrate that the hotel creates opportunities to impart green education equivalent to at least 1% of man-days per employee per year. (equivalent to 32 hours including in-house and external training programs)

(AND/OR)

##### ❖ Option 2: Guest Education & Engagement:

**Credit Point: 1**

- Display educational material and signage to raise awareness among guests about the hotel's green initiatives and sustainable lifestyle choices.

(OR)

- Introduce a reward or recognition mechanism for guests who actively participate in resource conservation efforts.

#### Exemplary Performance:

This credit is not eligible for exemplary performance.

#### Documentation Required:

##### Precertification

##### Option 1: Staff Awareness & Capacity Building

- i. Narrative describing the hotel's approach towards enhancing staff capacity and promoting sustainability awareness.
- ii. Proposed training plan or calendar highlighting topics, frequency, and target audience for sustainability-related sessions.
- iii. Sample training materials or presentation content to be used during awareness programmes.
- iv. Copy of draft Green O&M Guidelines proposed to be adopted by the hotel

##### Option 2: Guest Awareness & Engagement

- i. Narrative describing the hotel's proposed guest awareness and engagement strategies.



- ii. Conceptual layouts of proposed educational signages, digital displays, or awareness collaterals to be displayed in guest areas.
- iii. Details of planned guest participation initiatives such as linen reuse, waste segregation, or green mobility programmes.

### **Certification**

#### **Option 1: Staff Awareness & Capacity Building**

- i. Narrative describing the hotel's approach towards building staff capacity and promoting sustainability awareness.
- ii. Training calendar and attendance records indicating frequency and topics covered under sustainability training sessions.
- iii. Training materials or presentation content used during awareness programmes.
- iv. Copy of Green O&M Guidelines or Sustainability Handbook adopted by the hotel.
- v. Photographs of awareness programmes

#### **Option 2: Guest Awareness & Engagement**

- i. Narrative describing approach to acoustic design adopted in the project.
- ii. Details of guest participation programmes such as linen reuse, waste segregation, or green mobility.
- iii. Photographs or screenshots of educational signages, digital displays, or awareness materials displayed in guest areas.
- iv. Rewards instituted to acknowledge the efforts for guests who actively participate in resource conservation efforts.



# HEALTHY FOOD AND BEVERAGES

**Drinking Water Quality****New Hotel****Existing Hotel****HFB Credit 1****Credit Point:1****Intent:**

To ensure safe drinking water for guests and staff by maintaining quality within acceptable physical, chemical, and toxic limits.

**Compliance Options:**

Demonstrate that the drinking water is treated to meet the following drinking water specifications as per IS 10500- 2012 'Drinking Water- Specification Standard':

Characteristic	Requirement (Acceptable Limit)
<b>Physical Parameters</b>	
Colour	5 Hazen Units
Odour	Nil
Ph	6.5 – 8.5
Turbidity	1 NTU
TDS	500 mg/l
E.coli	Shall not be detectable in any 100ml sample
<b>General Parameters</b>	
Total Hardness CaCo <sub>3</sub>	200 mg/l
Chloride	250 mg/l
Iron	0.3 mg/l
<b>Toxic Parameters</b>	
Lead	0.01
Mercury	0.001
Total Arsenic	0.01

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification:**

- i. Narrative describing the proposed drinking water system.
- ii. Technical sheet of the proposed drinking water system.
- iii. Declaration letter from the project team confirming the drinking water quality parameters would be met as per IS 10500- 2012 'Drinking Water- Specification Standard'

**Certification:**

- i. Narrative describing the installed drinking water system.
- ii. Technical sheet of the installed drinking water system.
- iii. Quarterly drinking water test reports
- iv. Photographs of the drinking water system installed.



**Responsible Sourcing for Food & Beverage****New Hotel****Existing Hotel****HFB Credit 2****Credit Points: 2****Intent:**

Promote responsible food sourcing by procuring organic, locally grown, and fair-trade certified products.

**Compliance Options:**

The project shall demonstrate compliance through any one or a combination of the following measures (*Maximum 2 points*)

**❖ Option 1: Organic F&B Consumption****Credit Point : 1**

Source minimum 10% (by cost or weight) of the total fruits, vegetables, and grains consumed in the facility from organically produced sources certified under recognized standards such as National Program for Organic Production (NPOP), Agriculture and Processed Food Products Export Development Authority (APEDA), PGS-India, or equivalent.

**(AND/OR)**

**❖ Option 2: Responsibly Sourced Animal Products****Credit Point : 1**

Procure a minimum of 10% (by cost or weight) of the total animal products (dairy, meat & poultry) used in the hotel from responsible farms recognized by animal welfare Standards such as Certified Humane (India supply chains), Animal Welfare Board of India (AWBI) Good Husbandry Practices, Global Animal Partnership (GAP) for imported products.

**Notes:**

- *Organic Produce- Refers to fruits, vegetables, and grains grown without synthetic fertilizers, pesticides, or GMOs, following certified organic farming practices that sustain soil health and ecology.*
- *Responsibly Sourced Animal Products- Refers to meat, poultry, and dairy sourced from farms following ethical or responsible farming practices that ensure animal welfare and sustainability.*

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification:****Option 1: Organic Produce**

- i. Narrative and the proposed list of organic produce that shall be used in the hotel.
- ii. Declaration from project owner confirming that at least 10% (by cost or weight) of the vegetables, grains and fruits used in the hotel shall be organically produced.

**Option 2: Responsible sourcing of animal products**

- i. Narrative and the proposed list of responsibly sourced animal products that shall be used in the hotel.
- ii. Declaration from project owner confirming that at least 10% (by cost or weight) of the total animal products (dairy, meat & poultry) used in the hotel shall be responsibly sourced.

**Certification:****Option 1: Organic Produce**

- i. Narrative and the list of the organic food, being sourced under the Organic produce, indicating that at least 10% of total annual consumption (by weight or cost) along with the corresponding quantity.
- ii. Valid certification documents from National Program for Organic Produce(NPOP), Agricultural and Processed Food Products Export Development Authority (APEDA), PGS-India (Participatory Guarantee Scheme) or equivalent.
- iii. Internal log records for Organic Produce from F&B department.
- iv. Purchase invoice of the organic produce consumed.

**Option 2: Responsible sourcing of animal products**

- i. Narrative and the list of the animal products, being sourced under the responsible sourcing of animal products indicating that at least 10% of the total annual consumption (by weight or cost) along with the corresponding quantity.
- ii. Valid certification documents from Certified Humane (India supply chains), AWBI Good Husbandry Practices, GAP (for imported animal products).
- iii. Internal log records for responsible sourcing of animal products from F&B department
- iv. Purchase invoice of the responsible sourced food.

**Wellness Menu****New Hotel****Existing Hotel****HFB Credit 3****Credit Points: 3****Intent:**

Enhance guest well-being by offering nutritious, inclusive, and regionally inspired food options that support balanced and healthy diets.

**Compliance Options:**

The project shall demonstrate compliance through any one or a combination of the following measures (*1 credit point for each measure, maximum 3 points*)

**❖ Option 1: Healthy Food Menu**

Offer dedicated Healthy menu options prepared from whole, unprocessed ingredients, free from artificial flavors, colors, and preservatives.

**(AND/OR)**

**❖ Option 2: Local & Regional Cuisine**

Serve regional or traditional local dishes as part of menu options, prepared using locally sourced or seasonal ingredients to celebrate regional diversity and reduce food miles.

**(AND/OR)**

**❖ Option 3: Special Dietary Options**

Provide special dietary meal options such as vegan, gluten-free, lactose-free, or low-calorie options, are included as part of regular offerings.

**(AND/OR)**

**❖ Option 4: Nutrition Label**

Display information for all food and beverage items served within the facility. Hotels may provide details on Glycemic Index (GI), carbohydrates, fats, and proteins to enhance guest awareness.

**(AND/OR)**

**❖ Option 5: Allergen Disclosure**

Disclose the presence of common allergens (such as milk, eggs, gluten, nuts, soy, and shellfish) on menus, buffet counters, or display boards.

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification****Option 1: Healthy Food Menu**

- i. Narrative describing the hotel's approach for the consideration of Healthy Food menu
- ii. Declaration from Kitchen or Chef confirming preparation of items without artificial additives or processed ingredients.

**Option 2: Local & Regional Cuisine**

- i. Narrative describing the hotel's approach for having Local & Regional Cuisine in the hotel.
- ii. Declaration from project owner confirming that Local & Regional Cuisine shall be provided in the regular menu of the hotel.

**Option 3: Special Dietary Options**

- i. Narrative describing the hotel's approach for having special dietary options in the hotel.
- ii. Declaration from project owner confirming that Special dietary options catering to vegan, gluten-free, lactose-free, or low-calorie options shall be implemented in the Hotel

**Option 4: Nutrition Label**

- i. Narrative describing the hotel's approach for having Nutrition label for the food served in the hotel.
- ii. Declaration from project owner confirming that nutrition labelling shall be done for the food served in the hotel.
- iii. Nutritional information sheet (calorie count and breakdown) for representative menu items.

**Option 5: Allergen Declaration**

- i. Narrative describing the hotel's approach for serving food in the hotel with Allergen Declaration.
- ii. Declaration from project owner confirming that allergen declaration shall be done for the food served in the hotel.

**Certification****Option 1: Healthy Food Menu**

- i. Narrative describing the various Healthy Food options in the menu which are prepared from whole, unprocessed ingredients etc.
- ii. Copy of menu and list of ingredients which were used as alternatives for items without artificial additives or processed ingredients.
- iii. Purchase invoice or sourcing records showing use of local, seasonal, or organic ingredients where applicable.



**Option 2: Local & Regional Cuisine**

- i. Narrative describing the hotel's approach for having Local & Regional Cuisine in the hotel.
- ii. Copy of menu with Local and regional cuisine options
- iii. Photographs of the dishes being served under Local & Regional Cuisine.
- iv. Purchase invoice or sourcing records showing use of local and seasonal food as per the requirement of the dish.

**Option 3: Special Dietary Options**

- i. Narrative describing the hotel's approach for having special dietary options in the hotel.
- ii. Copy of menu indicating the special dietary options available in the hotel.
- iii. Photographs of special dietary options displayed in the buffet area.

**Option 4: Nutrition Label**

- i. Narrative describing the hotel's approach for having Nutrition label for the food served in the hotel.
- ii. Nutritional information sheet (calorie count and breakdown) for representative menu items.
- iii. Photographs of nutrition label displayed for the cooked dishes in the buffet area

**Option 5: Allergen Declaration**

- i. Narrative describing the hotel's approach for serving food in the hotel with Allergen Declaration.
- ii. Copy of menu indicating the allergen foods available in the hotel.
- iii. Photographs of allergen declaration cards displayed in the buffet area.



# GREEN HOUSEKEEPING

**Chemical Footprint Reduction****New Hotel****Existing Hotel****GH Credit 1****Credit points: 2****Intent:**

To promote eco-friendly & safe housekeeping chemicals thereby reducing total chemical carbon footprint and enhancing health & wellbeing of occupants.

**Compliance Options:****❖ Option 1: Eco- Friendly Housekeeping Chemicals****Credit Point: 1**

Use of eco-friendly (biodegradable and non-toxic) cleaning agents or GreenPro or Type 1 Eco Labelled products for the following applications within the hotel premises: (1 credit point for 3 chemicals)

- Carpet cleaning
- Floor cleaning, Glass cleaning
- General-purpose cleaning
- Restroom cleaning
- Laundry detergent
- Dishwashing detergent

**(AND/OR)****❖ Option 2: Chemical Use Intensity (CUI)****Credit Point: 1**

Demonstrate that the annual chemical consumption per guest night is within 1 litre/room night

$$\text{Chemical Use Intensity (CUI)} = \frac{\text{Annual Chemical Use (litre/year)}}{\text{Annual room nights}}$$

Annual room nights = Total occupied rooms in a year

**Note:**

- *Total chemical use shall include all chemicals used for housekeeping, water treatment (pool, STP, WTP, Drinking water), Kitchen, Laundry, Pest control and HVAC maintenance.*



Points are awarded as below:

Compliance Option	New Hotel	Existing Hotel
Eco friendly house keeping chemical	1	1
Chemical Use Intensity	NA	1

### Exemplary Performance:

This credit is not eligible for exemplary performance.

### Documentation Required:

#### Precertification

##### Option 1: Eco- Friendly Housekeeping Chemicals

- Narrative describing the list of proposed chemicals and approach adopted for selecting eco-friendly / biodegradable / non-toxic chemicals (GreenPro or Type-1 Eco-Label equivalent).
- Technical data sheets for the proposed eco-friendly / biodegradable / non-toxic chemicals (GreenPro or Type-1 Eco-Label equivalent).
- Declaration stating that eco-friendly chemicals shall be used for the housekeeping, laundry, and kitchen applications.

#### Certification

##### Option 1: Eco- Friendly Housekeeping Chemicals

- Narrative describing the list of applications and approach adopted for selecting eco-friendly / biodegradable / non-toxic chemicals (GreenPro or Type-1 Eco-Label equivalent).
- Purchase invoices for the eco-friendly or equivalent chemicals of the last 3 months.
- Technical data sheets for the selected eco-friendly / biodegradable / non-toxic chemicals (GreenPro or Type-1 Eco-Label equivalent).
- Photographs of the chemicals highlighting the ingredients.

##### Option 2: Chemical Use Intensity (CUI)

- Narrative describing the methodology adopted to track and monitor annual chemical consumption, including details of all functional areas covered (housekeeping, laundry, kitchen, pool, STP/WTP, drinking water, pest control, HVAC maintenance).
- Excel based calculations indicating the Chemical use Intensity (litres/room night) for the hotel.
- Log record indicating the chemical consumption for 12 months along with number of room nights.





## Sustainable Linen Policy

New Hotel	Existing Hotel
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### GH Credit 2:

**Credit point: 1**

#### Intent:

To reduce resource consumption such as energy, water and chemicals in hotel industry, thereby reducing their negative environmental impact on the ecology.

#### Compliance Options:

Implement a hotel-wide linen reuse policy across all guest rooms to reduce the frequency of washing bed linens and towels along with housekeeping procedures to ensure consistent implementation across all guest rooms.

#### Note:

- *Highlight the guest communication materials (signage, in-room information, or digital prompts) encouraging guests to participate.*

#### Exemplary Performance:

This credit is not eligible for exemplary performance.

#### Documentation Required:

##### Precertification

- i. Narrative describing the proposed linen reuse policy to be implemented across the hotel.
- ii. Draft Policy document indicating adoption of a linen reuse across all guest rooms in the hotel.

##### Certification

- i. Narrative describing the linen reuse policy adopted by the project.
- ii. Copy of the approved linen reuse policy implemented in the facility.
- iii. Photographs of the installed guest communication materials displayed in guest rooms.
- iv. Housekeeping standard operating procedures (SOPs) demonstrating implementation of the reuse policy in the project.
- v. Records/logs or housekeeping checklists confirming adoption of reduced linen and towel washing frequency.



## Wellness Toiletries

New Hotel	Existing Hotel
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**GH Credit 3**

**Credit Points: 2**

### Intent:

To promote guest well-being through organic, non-toxic toiletries and environmentally responsible packaging.

### Compliance Options:

Demonstrate that the hotel procures guest toiletries that are made from natural ingredients or are free from harmful chemicals.

Toiletry Product	Product Composition
Toothpaste	Natural or free from SLS, Triclosan & Paraben
Shampoo & Conditioner	Natural or free from SLS, Triclosan, Phthalate & Paraben
Moisturizer	Natural or free from Silicones, Phthalate & Paraben
Shower Gel	Natural or free from SLS, Triclosan & Paraben

### Exemplary Performance:

This credit is not eligible for exemplary performance.

### Documentation Required:

#### Precertification

- Narrative describing the proposed list and strategy for providing natural or chemical free toiletries for guest use.
- Product specification sheets of proposed toiletries indicating natural or chemical free toiletries for guest use.
- Declaration confirming that natural or chemical free toiletries will be provided during project operation.

#### Certification

- Narrative describing the list and strategy for providing natural or chemical free toiletries for guest use.
- Product specification sheets of the toiletries provided in the project.
- Purchase invoices of the last three months for the toiletries used in the project.
- Photographs of the toiletries provided in the project.



## Swimming Pool for Guest Wellness

New Hotel	Existing Hotel
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GH Credit 4

Credit point: 1

### Intent:

To ensure pool water quality through eco-friendly disinfection methods.

### Compliance Options:

#### ❖ Option 1: Pool Water Quality Monitoring System

Demonstrate that a continuous monitoring system is installed to maintain total free residual chlorine between 0.2 and 0.5 ppm, as per *IS:3328:1993 - Code of Practice for Chlorination of Water (for Swimming Pools)*, in the pool area through a public display system.

(OR)

#### ❖ Option 2: Alternative Pool Water Treatment Systems

Treat swimming pool water using chemical-free or low-chemical alternatives, such as:

- Ozone treatment systems
- Ultraviolet (UV) disinfection
- Combination systems (e.g., UV + low chlorine)
- Any other system

### Exemplary Performance:

This credit is not eligible for exemplary performance.

### Documentation Required:

#### Precertification

##### Option 1: Pool Water Quality Monitoring System

- i. Narrative describing the continuous residual chlorine monitoring strategy proposed in the project
- ii. Technical details of the proposed monitoring system, including sensors, display units and control mechanism.
- iii. Schematic drawings highlighting the proposed monitoring system integration with the pool water system.
- iv. Site plan indicating the proposed location of the swimming pool and monitoring equipment.



- v. Purchase invoice of monitoring system, including sensors, display units installed in the project, if available
- vi. Declaration confirming that continuous monitoring will be implemented to maintain residual chlorine levels as per IS:3328:1993.

### **Option 2: Alternative Pool Water Treatment Systems**

- i. Narrative describing the alternative disinfection method proposed in the project
- ii. Technical details of the proposed system including technology type, capacity and performance details.
- iii. Site plan indicating the location of the swimming pool and associated treatment equipment proposed in the project.
- iv. Declaration confirming that the selected alternative system will be implemented

### **Certification**

#### **Option 1: Pool Water Quality Monitoring System**

- i. Narrative describing the chlorine monitoring strategy adopted by the project.
- ii. Technical details of the installed monitoring system, including calibration settings and operating ranges.
- iii. Site plan indicating the actual location of the swimming pool and monitoring equipment.
- iv. Purchase invoice of monitoring system, including sensors, display units installed in the project
- v. Photographs of the installed monitoring system, including sensors, display units installed in the project

#### **Option 2: Alternative Pool Water Treatment Systems**

- vi. Narrative describing the alternative treatment strategy adopted by the project.
- vii. Technical details of the installed system including capacity, operational parameters and performance achieved in the project.
- viii. Site plan indicating the location of the swimming pool and treatment system.
- ix. Water quality test reports/log books of the past three months demonstrating the performance of the installed system.
- x. Photographs/Videos of the swimming pool and treatment system.

**Organic Fertilizers****New Hotel****Existing Hotel****GH Credit 5****Credit point: 1****Intent:**

Encourage use of organic fertilisers to minimize negative impact on soil, flora & fauna.

**Compliance Options:**

Use organic fertilisers & pesticides for 100% of requirement for landscape area.

**Notes:**

*Organic Fertilisers include:*

1. *Vermicompost*
2. *Leaf mould*
3. *Bone meal*
4. *Farmyard manure*
5. *Deoiled cakes like neem cake, pongamia cake, Castor cake*

*Organic Pesticides include:*

1. *Neem seed kernel extract*
2. *Chilli and garlic paste*
3. *Sitaphal seed powder*
4. *Chrysanthemum extracts*
5. *Panchagavya*
6. *Panchmrutham*

**Exemplary Performance:**

This credit is not eligible for exemplary performance.

**Documentation Required:****Precertification**

- i. Narrative describing the organic fertiliser and pesticide strategy proposed by the project along with the list of proposed organic fertilisers and organic pesticides.



- ii. Detailed plan and sectional drawings of the proposed organic fertiliser preparation/storage system
- iii. Site plan highlighting the proposed location of the organic fertiliser/pesticide preparation or storage area.
- iv. Details of the selected method, including system type, capacity, suitability for landscape requirements, and process flow.
- v. Declaration confirming that 100% of the landscape requirement will be met using organic fertilisers and organic pesticides.

### **Certification**

- i. Narrative describing the organic fertiliser and pesticide strategy adopted by the project along with the list of organic fertilisers and organic pesticides.
- ii. Details of the method implemented, including system type, capacity, suitability for landscape requirements, and process flow.
- iii. Site plan highlighting the actual location of the system
- iv. Sectional drawings of the implemented organic fertiliser/pesticide preparation or storage system.
- v. Past three months' tax invoices and product/specification sheets of organic fertilisers and organic pesticides used.
- vi. Photographs of the organic fertilisers and organic pesticides used.



# INNOVATION AND EXEMPLARY PERFORMANCE



## Innovation and Exemplary Performance

New Hotel	Existing Hotel
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### INN Credit 1

**Credit Points: 4**

#### Intent:

Provide projects an opportunity to be awarded points for innovative performance in Green Hotel categories not specifically addressed by the Green Hotel Certification rating system and/or exemplary performance above the requirements set by the Green Hotel Certification rating system.

#### Compliance Options:

#### ❖ INN Credit 1.1: Innovation and Exemplary performance

##### ➤ Option 1: Innovation

Identify the intent of innovation credit, requirement for compliance, approach used to meet the required measures, and documentation to demonstrate compliance.

#### Notes:

*The project shall also meet the following criteria for achieving an Innovation point:*

- *Quantitative performance improvements (comparing a baseline and design case).*
- *Strategy must be significantly better than standard sustainable design & construction practices.*
- *Measures must be voluntary. Measures that are mandated by the local byelaws and not addressed in the rating system are not eligible for Innovation.*

**(OR)**

##### ➤ Option 2: Exemplary Performance

The project is eligible for exemplary performance, if the design and/ or construction measures greatly exceed the credit requirements of the IGBC Green Hotel rating system.

#### Notes:

- *As a general rule, points for exemplary performance are awarded for doubling the credit requirements and / or achieving the next incremental percentage threshold.*
- *Eligibility criteria for various credits in the IGBC Green Hotel rating system are defined in respective credits and Exhibit - A.*

#### ❖ INN Credit 1.2: Innovation and Exemplary performance

Same as credit 1.1

#### ❖ INN Credit 1.3: Innovation and Exemplary performance

Same as credit 1.1





### ❖ INN Credit 1.4: Innovation and Exemplary performance

Same as credit 1.1

#### Exhibit A - List of Base Credits eligible for Exemplary Performance

Sustainable Sites	
SS Credit 1	Sustainable Landscape <ul style="list-style-type: none"> <li>➤ Green cover/vegetation exceeds 20% of the total site area (or)</li> <li>➤ Minimum of two tree saplings for every 80 m<sup>2</sup> of the site area (or)</li> <li>➤ Landscape area per guest room greater than 9 m<sup>2</sup> for 3-Star and below hotels, and greater than 14 m<sup>2</sup> for 4-Star and 5-Star hotels.</li> </ul>
Energy Efficiency	
EE Credit 3	Energy Efficiency <ul style="list-style-type: none"> <li>➤ Kitchen Electrification %-70%- For New Hotels</li> <li>➤ Kitchen Electrification %-50%- For New Hotels</li> </ul>
EE Credit 2	Enhanced Energy Performance <ul style="list-style-type: none"> <li>➤ 9% savings are achieved from ASHRAE 90.1-2022 base case (or)</li> <li>➤ 29% savings are achieved from ECSBC 2024 base case (or)</li> <li>➤ 29% of savings are achieved from EUI</li> </ul>
EE Credit 8	Heat Resources & Recovery <ul style="list-style-type: none"> <li>➤ Heat recovery is implemented for 3 or more systems</li> </ul>
Water Conservation	
WC Credit 1	Enhanced Rainwater Harvesting <ul style="list-style-type: none"> <li>➤ As defined in credit</li> </ul>
WC Credit 2	Enhanced Water Efficiency <ul style="list-style-type: none"> <li>➤ ≥25% of potable water savings</li> </ul>
WC Credit 5	Irrigation Management <ul style="list-style-type: none"> <li>➤ &gt;25% of potable water savings</li> </ul>
WC Credit 6	Alternative Water performance <ul style="list-style-type: none"> <li>➤ Water performance ratio is ≥ 65%.</li> </ul>
Carbon Neutrality	
CN Credit 3	Promotion of Local Economy <ul style="list-style-type: none"> <li>➤ ≥75% of employees are local (or)</li> <li>➤ ≥75% of food products</li> </ul>
Environment for Guest Wellbeing	
EGW Credit 1	Daylighting <ul style="list-style-type: none"> <li>➤ ≥75% of regularly occupied areas meet the daylighting requirement as defined in the credit</li> </ul>



EGW Credit 2	<p>Connectivity with Nature</p> <p>➤ &gt;95% of regularly occupied areas achieve direct line of sight to vision glazing. requirement as defined in the credit.</p>
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EGW Credit 4	<b>Wellbeing Facilities</b> <ul style="list-style-type: none"><li>➤ ≥10% of rooms are provided as wellness suites (or)</li><li>➤ ≥ 4 physical well-being facilities are provided (or)</li><li>➤ ≥ 4 spiritual well-being facilities are provided.</li></ul>
<b>Material Stewardship</b>	
MS Credit 3	<b>Green Products</b> <ul style="list-style-type: none"><li>➤ ≥ 50% of the total building materials and products (by cost) used in the hotel are GreenPro or Type 1 eco-labelled products</li><li>➤ ≥ 6 passive or active green building materials, products, and equipment that are certified by GreenPro or Type 1 eco-labelled.</li></ul>

**Documentation Required:****Precertification****Innovation:**

- Narrative describing intent, requirements, potential strategies and technologies proposed to achieve the innovation credit. Strategies adopted must be significantly better than standard sustainable design practices
- Table indicating tentative quantitative performance improvements, comparing baseline and design case
- Other supporting documents such as drawings, illustrations, cut-sheets, test reports, etc., as applicable

**Exemplary Performance:**

- Narrative describing the strategies proposed to achieve exemplary performance in the respective base credit

*Note: Provide supporting documents in the respective base credit folder*

**Certification****Innovation:**

- Narrative describing intent, requirements, strategies and technologies implemented to achieve the innovation credit. Strategies adopted must be significantly better than standard sustainable design practices
- Table indicating quantitative performance improvements, comparing baseline and design case
- Other supporting documents such as drawings, illustrations, cut-sheets, test reports, etc., as applicable

**Exemplary Performance:**

- Narrative describing the strategies implemented to achieve exemplary performance in the respective base credit

*Note: Provide supporting documents in the respective base credit folder*



## IGBC Accredited Professional

New Hotel	Existing Hotel
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### INN Credit 2

**Credit Point:2**

#### Intent:

Support and encourage involvement of IGBC Accredited Professional in green hotel certification projects, so as to integrate appropriate design measures and streamline the certification process.

#### Compliance Options:

##### New Hotels:

- Demonstrate that at least two members including the Project team and Architect/Designer or MEP Consultant are IGBC Accredited Professionals. *(1 credit point for each Accredited Professional)*

##### Existing Hotels:

- Demonstrate that atleast two members from the Facility team are IGBC Accredited Professionals. (1 credit point for each Accredited Professional).

#### Documentation Required:

##### Precertification and Certification

- i. IGBC Accredited Professional certificate of participants involved in the project.



**For more details, please contact :**

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