Confederation of Indian Industry

IGBC Green Campus Rating System –Version 1.0

(Abridged Reference Guide)

Third Addendum - May 2026

- ***Applicable to all projects registered under IGBC Green Campus Rating System - Version 1.0, since the launch in July 2024***
- ***Precertified/ Provisionally certified projects can show compliance as per the Third Addendum as and when they come for Certification***

<table>
<tr><th>Page No.</th><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td>14,15 &16</td><td>Checklist

Credit Names and Number of points</td><td></td><td><u>Existing Text:</u>

CHECKLIST
<table>
<tr><th colspan="2">IGBC Green Campus Rating System</th><th>New Campuses</th><th>Existing Campuses</th></tr>
<tr><td colspan="2">Site Planning and Management</td><td>25</td><td>25</td></tr>
<tr><td>SPM MR 1</td><td>Green Features in the Campus Buildings</td><td>Required</td><td>Required</td></tr>
<tr><td>SPM MR 2</td><td>Soil Erosion Control</td><td>Required</td><td>Required</td></tr>
<tr><td>SPM Credit 1</td><td>Enhanced Green Features in the Campus Buildings</td><td>12</td><td>12</td></tr>
<tr><td>SPM Credit 2</td><td>Basic Amenities</td><td>1</td><td>1</td></tr>
<tr><td>SPM Credit 3</td><td>Site Preservation</td><td>2</td><td>NA</td></tr>
<tr><td>SPM Credit 4</td><td>Green Cover</td><td>4</td><td>4</td></tr>
<tr><td>SPM Credit 5</td><td>Heat Island Reduction, Roof & Non-roof</td><td>4</td><td>6</td></tr>
<tr><td>SPM Credit 6</td><td>Outdoor Light Pollution Reduction</td><td>1</td><td>1</td></tr>
<tr><td>SPM Credit 7</td><td>Universal Design</td><td>1</td><td>1</td></tr>
</table></td></tr>
</table>

Sustainable Transportation		**7**	**7**
ST Credit 1	Pedestrian Network	2	2
ST Credit 2	Bicycle Network	2	2
ST Credit 3	Access to Sustainable Transportation	3	3
Water Conservation		**19**	**20**
WC MR 1	Rainwater Harvesting	Required	Required
WC Credit 1	Enhanced Rainwater Harvesting	6	6
WC Credit 2	Sustainable Landscape	2	2
WC Credit 3	Management of Irrigation Systems	2	2
WC Credit 4	Wastewater Treatment and Reuse	5	6
WC Credit 5	Optimise Water Use for Construction	1	NA
WC Credit 6	Water Performance Monitoring	3	4
Energy Efficiency		**21**	**24**
EE Credit 1	Eco-friendly refrigerants	1	2
EE Credit 2	Enhanced Energy Efficiency	7	8

			EE Credit 3	Green Power	10	10
			EE Credit 4	Energy Performance Monitoring	3	4
			Material and Resource Management		**12**	**8**
			MRM MR 1	Segregation of Waste, Post-occupancy	Required	Required
			MRM Credit 1	Sustainable Building Materials	4	NA
			MRM Credit 2	Use of Green Products & Equipment	3	3
			MRM Credit 3	Handling of Waste Materials, During Construction	1	NA
			MRM Credit 4	Dry Waste Management, Post-occupancy	NA	1
			MRM Credit 5	Organic Waste Management, Post-occupancy	4	4
			Health & Well-being		**8**	**6**
			HWB MR 1	Tobacco Smoke Control	Required	Required
			HWB Credit 1	Daylighting	2	3
			HWB Credit 2	Control Indoor and Outdoor Pollutants	1	1
			HWB Credit 3	Low VOC Materials	2	NA

HWB Credit 4	Health & Well-being Facilities	2	2
HWB Credit 5	Basic Facilities for Construction Workforce	1	NA
Sustainable Operation & Maintenance		**1**	**3**
SOM Credit 1	Green Audit	NA	2
SOM Credit 2	Green Education	1	1
Innovation in Design		**7**	**7**
ID Credit 1	Innovation in Design Process	4	4
ID Credit 2	GHG Inventorization and Mitigation Measures	2	2
ID Credit 3	IGBC Accredited Professional	1	1
-	**Total**	**100**	**100**

The threshold criteria for certification levels are as under:

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

New Text:

CHECKLIST

IGBC Green Campus Rating System		New Campuses	Existing Campuses
Site Planning and Management		**25**	**25**
SPM MR 1	Green Features in the Campus Buildings	Required	Required
SPM MR 2	Soil Erosion Control	Required	Required
SPM Credit 1	Enhanced Green Features in the Campus Buildings	12	12

			SPM Credit 2	Basic Amenities	1	1
			SPM Credit 3	Ecology and Biodiversity Conservation	2	2
			SPM Credit 4	Green Cover	4	4
			SPM Credit 5	Heat Island Reduction, Roof & Non-roof	4	4
			SPM Credit 6	Outdoor Light Pollution Reduction	1	1
			SPM Credit 7	Universal Design	1	1
			Sustainable Transportation		**7**	**7**
			ST Credit 1	Pedestrian Network	2	2
			ST Credit 2	Sustainable Campus Mobility	2	2
			ST Credit 3	Access to Sustainable Transportation	3	3
			Water Conservation		**18**	**18**
			WC MR 1	Rainwater Harvesting	Required	Required
			WC Credit 1	Enhanced Rainwater Harvesting	6	6
			WC Credit 2	Sustainable Landscape	2	2
			WC Credit 3	Management of Irrigation Systems	2	2

			WC Credit 4	Wastewater Treatment and Reuse	5	6
			WC Credit 5	Optimise Water Use for Construction	1	NA
			WC Credit 6	Water Performance Monitoring	2	2
			Energy Efficiency		**17**	**18**
			EE Credit 1	Eco-friendly refrigerants	1	2
			EE Credit 2	Enhanced Energy Efficiency	4	4
			EE Credit 3	Green Power	10	10
			EE Credit 4	Energy Performance Monitoring	2	2
			Material and Resource Management		**12**	**8**
			MRM MR 1	Segregation of Waste, Post-occupancy	Required	Required
			MRM Credit 1	Sustainable Building Materials	4	NA
			MRM Credit 2	Use of Green Products & Equipment	3	3
			MRM Credit 3	Handling of Waste Materials, During Construction	1	NA
			MRM Credit 4	Dry Waste Management, Post-occupancy	NA	1
			MRM Credit 5	Organic Waste Management, Post-occupancy	4	4

			Health & Well-being		**8**	**7**
			HWB MR 1	Tobacco Smoke Control	Required	Required
			HWB Credit 1	Daylighting	2	2
			HWB Credit 2	Control Indoor and Outdoor Pollutants	1	1
			HWB Credit 3	Low VOC Materials	1	NA
			HWB Credit 4	Health & Well-being Facilities	2	2
			HWB Credit 5	Basic Facilities for Construction Workforce	1	NA
			HWB Credit 6	Occupational Health & Safety	1	1
			HWB Credit 7	Occupant Satisfaction Survey	NA	1
			Sustainable Operation & Maintenance		**6**	**8**
			SOM Credit 1	Green Audit	NA	2
			SOM Credit 2	Green Education	2	2
			SOM Credit 3	Smart Campus Operations	4	4
			Innovation in Design		**7**	**9**
			ID Credit 1	Innovation in Design Process	4	4

ID Credit 2	GHG Inventorization and Mitigation Measures	2	2
ID Credit 3	Beyond the Fence Green Initiatives	NA	1
ID Credit 4	Social Well-being & Community Practices	NA	1
ID Credit 5	IGBC Accredited Professional	1	1
-	**Total**	**100**	**100**

The threshold criteria for certification levels are as under:

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

<table>
<tr>
<td>20</td>
<td>Enhanced Green Features in the Campus Buildings</td>
<td>SPM Credit 1

Compliance Options</td>
<td>
<u>Existing Text:</u>
Green Features in the Campus Buildings (Max. 12 points)

Design/retrofit all individual buildings in campus to comply with credit requirements under appropriate typology IGBC Rating System. (e.g., IGBC Green New Buildings, IGBC Green Existing Building, IGBC Green Homes)

1. Energy Efficiency 8 Points

New Campus:

<u>Option 1: Performance Based Approach (Whole Building Simulation)</u>

Demonstrate compliance following typology specific IGBC Rating system. (e.g., IGBC Green New Buildings, IGBC Green Existing Building, IGBC Green Homes) Credit points would be awarded based on EPI ratio.
<table>
<tr><th>EPI Ratio</th><th>Points</th></tr>
<tr><td>0.95</td><td>1</td></tr>
<tr><td>0.92</td><td>2</td></tr>
<tr><td>0.89</td><td>3</td></tr>
<tr><td>0.86</td><td>4</td></tr>
<tr><td>0.83</td><td>5</td></tr>
<tr><td>0.80</td><td>6</td></tr>
<tr><td>0.77</td><td>7</td></tr>
<tr><td>0.74</td><td>8</td></tr>
</table>
EPI Ratio = $\frac{\sum \text{ of Proposed Case annual energy consumption of individual buildings}}{\sum \text{ of Base Case annual energy consumption of individual building.}}$
</td>
</tr>
</table>

			Note : • *Projects that use on-site renewable energy sources (such as solar energy, wind power, biomass, etc.,) cannot subtract renewable energy generated from the total annual energy consumption of the proposed case.* **(OR)** **Option-2 :Prescriptive Approach** The project shall meet or exceed the following prescriptive measures for all individual buildings in the campus, as applicable: (Maximum 8 points) ❖ **Building Envelope (Air Conditioned Buildings): 3 Points** For all individual buildings in the campus, the project must ensure that the following building envelope measures meet the prescriptive measures of ECBC 2017 (or) ASHRAE Standard 90.1-2019 (1 point for each measure) ❖ Glazing Solar Heat Gain Coefficient (SHGC)* ❖ Overall Wall Assembly U-value ❖ Overall Roof Assembly U-value ***Notes:*** • **Low SHGC value can be achieved through chajjas or other sun shading devices or efficient fenestration or a combination of both. For details, refer to ECBC 2017 Section 4.3.3 – Vertical Fenestration, Exception to ECBC 2017.* • *If Window-to-Wall ratio (WWR) is more than 40%, then the points for glazing would not be applicable.*

❖ **Lighting Power Density:** **3 Points**

For all individual buildings in the campus, the lighting power density in the building interior areas shall be reduced by minimum 20% over ASHRAE Standard 90.1 – 2019 or ECBC 2017 (Section 6, ECBC Building) base case.

Points are awarded as below:

Reduction in Lighting Power Density	Points
≥ 20 %	1
≥ 30 %	2
≥ 40 %	3

Notes:

- *Compliance for the lighting power density shall be shown either through 'Building Area Method' or 'Space-by-Space Method'/ 'Space Function Method'. 'Building Area Method' shall be considered if the individual buildings in campus are single use/typology buildings (E.g.: hostel block with accommodation, administration building with offices, academic block with classrooms) If 'Building Area Method' is considered, compliance for parking area lighting (if within the building) shall be shown separately. 'Space-by-Space Method' shall be considered when individual buildings in the campus are mixed use/ typology buildings (E.g.: offices, labs & classrooms in the same building)*
- *The LPD should include power consumption of complete fixture, including lamps and ballasts*

❖ **Lighting Controls:** **1 Point**

For 50% of the lighting load of non-residential buildings in the campus, shall have at least one of the following:

- Daylight sensor
- Occupancy / Motion sensor
- Timers / Dimmer

❖ **Air-conditioning Systems:** **2 Points**

For projects having air-conditioners, the points would be awarded as below:

➢ **Unitary Air-conditioners:**

BEE Star Rating/ equivalent	No. of Points
4 star rated	1
5 star rated	2

➢ **Variable Refrigerant Flow:**

Efficiency of VRF systems over ASHRAE Standard 90.1 2019 or ECBC 2017 baseline	No. of Points
≥ 10%	1
≥ 15%	2

➢ **Chillers:**

Efficiency of Chillers over ASHRAE Standard 90.1 2019 or ECBC 2017 baseline	No. of Points
≥ 10%	1
≥ 15%	2

➢ **Fans:** **2 Points**

- Atleast 75% of the fans installed in all individual buildings shall have an efficiency equivalent to BEE 5-star rating (1 point).
- Atleast 50% of the fans installed in the building shall be BLDC Fans (2 points).

➢ **Hot Water Systems:** **1 Point**

Projects having any one of the following efficient hot water systems for 100% of campus hot water requirement:

- Solar thermal hot water system
- Heat pump with minimum CoP of 3.2

Note:

The minimum hot water requirement for domestic purposes should be considered as 20 liters per person per day.

Existing Campus

EPI Approach: **8 Points**

Credit points would be awarded based on the EPI (Energy Performance Index) of the campus as mentioned in the table below:

Percentage conditioned area	EPI Range	Percentage conditioned area	EPI Range	Percentage conditioned area	EPI Range	Points
Less than 25	61-75	25% - 50%	81-96	50%-75%	101-116	2
	50-60		67-80		86-100	4
	39-49		53-66		71-85	6
	28-38		38-52		56-70	8

Percentage conditioned area	EPI Range	Percentage conditioned area	EPI Range	Points
75%-95%	116-130	95% and above	132-147	2
	101-115		118-132	4
	87-100		103-117	6
	74-88		88-102	8

2. Water Efficiency **4 Points**

Demonstrate that all the individual buildings in campus use/ retro-fit water efficient plumbing fixtures (as applicable) whose flow rates meet the baseline criteria (in aggregate) given in the table below. The total annual water consumption of each building should not exceed the total base case water consumption computed.

Note:

- *Use of treated waste water / captured rain water shall not be considered to show potable water savings.*

The baseline criteria are as below for Commercial buildings (Non-Residential) in the campus:

Fixture Type	Maximum Flow Rate / Consumption	Duration	Estimated Daily Uses per FTE**
Water Closets (Full-flush)	6 LPF	1 flush	1 for male; 1 for female
Water Closets (Half-flush)	3 LPF	1 flush	2 for female
Urinals	4 LPF	1 flush	2 for male
Faucets / Taps*	6 LPM	15 seconds	4
Health Faucet*	6 LPM	15 seconds	1
Showerhead / Hand-held Spray*	10 LPM	8 Minutes	0.1

The baseline criteria are as below for Residential buildings in the campus:

Fixture Type	Maximum Flow Rate/ Consumption	Duration	Estimated Daily Uses per person per day
Water Closets (Full-flush)	6 LPF	1 flush	1
Water Closets (Half-flush)	3 LPF	1 flush	1

Urinals	4 LPF	1 flush	2
Faucets / Taps*	6 LPM	15 seconds	8
Kitchen Sink*	6 LPM	15 seconds	6
Health Faucet*	6 LPM	15 seconds	1
Showerhead / Hand-held Spray*	10 LPM	8 Minutes	1

Source: Uniform Plumbing Code – India

** Reporting pressure for these fixtures shall be at 4 bar.*

*** 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.*

Notes:

- *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'.*
- *The baseline flows can be demonstrated at a flowing water pressure of 4 bar. Flowing water pressure of 4 bar does not mean that the water supply in the building is at 4 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 bar.*
- *Default occupancy shall be considered as 50% for male and female.*
- *FTE occupancy shall be considered in calculation, including visitors.*
- *In existing campuses, flow rates of the water fixtures can be measured on-site through weighted average approach and report the flow rates.*

- *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.*

Demonstrate reduction in water consumption through installation of water efficient plumbing fixtures.

Points are awarded as below:

Percentage of Potable Water Savings over Baseline	Points
> 20 %	1
> 25 %	2
> 30 %	3
> 35 %	4

Exemplary Performance:

The project is eligible for exemplary performance if more than 40% of water savings is demonstrated over the baseline consumption.

New Text:

Green Features in the Campus Buildings *(Max. 8 points)*

Option 1: EPI Ratio

Demonstrate compliance following typology specific IGBC Rating system. (e.g., IGBC Green New Buildings, IGBC Green Existing Building, IGBC Green Homes) Credit points would be awarded based on EPI ratio.

EPI Ratio	Points
0.95	1
0.92	2
0.89	3
0.86	4
0.83	5
0.80	6
0.77	7
0.74	8

$$\text{EPI Ratio} = \frac{\sum \text{Proposed Case / Actual annual energy consumption of individual buildings}}{\sum \text{Base Case / Baseline annual energy consumption of individual building.}}$$

Note :

- *Projects that use on-site renewable energy sources (such as solar energy, wind power, biomass, etc.,) cannot subtract renewable energy generated from the total annual energy consumption of the proposed case.*
- *For New buildings which are less than one year of operation the proposed annual energy consumption shall be based on Whole building Simulation of individual buildings.*

- *For existing buildings with more than one year of operation the actual (measured) case annual energy consumption shall be considered.*
- *Baseline energy consumption shall be determined based on the applicable IGBC rating system baseline or benchmark EPI for the respective building typology.*

Option 2: Energy Performance Index (EPI): **8 Points**

(Applicable for Existing Campus only))

Credit points would be awarded based on the EPI (Energy Performance Index) of the campus as mentioned in the table below:

Percentage conditioned area	EPI Range	Percentage conditioned area	EPI Range	Percentage conditioned area	EPI Range	Points
Less than 25	61-75	25% - 50%	81-96	50%-75%	101-116	2
	50-60		67-80		86-100	4
	39-49		53-66		71-85	6
	28-38		38-52		56-70	8

Percentage conditioned area	EPI Range	Percentage conditioned area	EPI Range	Points
75%-95%	116-130	95% and above	132-147	2
	101-115		118-132	4
	87-100		103-117	6
	74-88		88-102	8

Note:

All sources of energy consumption, including electricity, diesel and renewable energy, shall be considered.

(OR)

Option 3 :Prescriptive Approach

The project shall meet or exceed the following prescriptive measures for all individual buildings in the campus, as applicable: (Maximum 8 points)

❖ **Building Envelope:** **3 Points**

For all individual buildings in the campus, the project must ensure that the following building envelope measures meet the prescriptive measures of ECBC 2017 (or) ASHRAE Standard 90.1-2019 (1 point for each measure)

- Glazing Solar Heat Gain Coefficient (SHGC)*
- Overall Wall Assembly U-value
- Overall Roof Assembly U-value

Notes:

- **Low SHGC value can be achieved through chajjas or other sun shading devices or efficient fenestration or a combination of both. For details, refer to ECBC 2017 Section 4.3.3 – Vertical Fenestration, Exception to ECBC 2017.*
- *If Window-to-Wall ratio (WWR) is more than 40%, then the points for glazing would not be applicable.*

❖ **Lighting Power Density:** **3 Points**

For all individual buildings in the campus, the lighting power density in the building interior areas shall be reduced by minimum 20% over ASHRAE Standard 90.1 – 2019 or ECBC 2017 (Section 6, ECBC Building) base case.

Points are awarded as below:

Reduction in Lighting Power Density	Points
≥ 20 %	1
≥ 30 %	2
≥ 40 %	3

Notes:

- *Compliance for the lighting power density shall be shown either through 'Building Area Method' or 'Space-by-Space Method'/ 'Space Function Method'. 'Building Area Method' shall be considered if the individual buildings in campus are single use/typology buildings (E.g.: hostel block with accommodation, administration building with offices, academic block with classrooms) If 'Building Area Method' is considered, compliance for parking area lighting (if within the building) shall be shown separately. 'Space-by-Space Method' shall be considered when individual buildings in the campus are mixed use/ typology buildings (E.g.: offices, labs & classrooms in the same building)*
- *The LPD should include power consumption of complete fixture, including lamps and ballasts*

❖ **Lighting Controls:** **1 Point**

For 50% of the lighting load of non-residential buildings in the campus, shall have at least one of the following:

- Daylight sensor
- Occupancy / Motion sensor
- Timers / Dimmer

❖ **Air-conditioning Systems:** **2 Points**

For projects having air-conditioners, the points would be awarded as below:

			➢ **Unitary Air-conditioners:** **BEE Star Rating/ equivalent** | **No. of Points** 4 star rated | 1 5 star rated | 2 ➢ **Variable Refrigerant Flow:** **Efficiency of VRF systems over ASHRAE Standard 90.1 2019 or ECBC 2017 baseline** | **No. of Points** ≥ 10% | 1 ≥ 15% | 2 ➢ **Chillers:** **Efficiency of Chillers over ASHRAE Standard 90.1 2019 or ECBC 2017 baseline** | **No. of Points** ≥ 10% | 1 ≥ 15% | 2

➢ **Fans:** **2 Points**

- Atleast 75% of the fans installed in all individual buildings have an efficiency equivalent to BEE 5-star rating (1 point).
- Atleast 50% of the fans installed in the building shall be BLDC Fans (2 points).

➢ **Hot Water Systems:** **1 Point**

Projects having any one/ combination of the following efficient hot water systems for 100% of campus hot water requirement:

- Solar thermal hot water system
- Heat pump with minimum CoP of 3.2
- BEE 5 star Geysers
- Boilers of at least 95% efficiency

2. Water Efficiency **4 Points**

Demonstrate that all the individual buildings in campus use/ retro-fit water efficient plumbing fixtures (as applicable) whose flow rates meet the baseline criteria (in aggregate) given in the table below. The total annual water consumption of each building should not exceed the total base case water consumption computed.

The baseline criteria are as below for Commercial buildings (non-residential) in the campus:

Fixture Type	Maximum Flow Rate / Consumption	Duration	Estimated Daily Uses per FTE**
Water Closets (Full-flush)	6 LPF	1 flush	1 for male; 1 for female
Water Closets (Half-flush)	3 LPF	1 flush	2 for female
Urinals	4 LPF	1 flush	2 for male
Faucets / Taps*	6 LPM	15 seconds	4

Health Faucet*	6 LPM	15 seconds	1
Showerhead / Hand-held Spray*	10 LPM	8 Minutes	0.1

The baseline criteria are as below for Residential buildings in the campus:

Fixture Type	Maximum Flow Rate/ Consumption	Duration	Estimated Daily Uses per person per day
Water Closets (Full-flush)	6 LPF	1 flush	1
Water Closets (Half-flush)	3 LPF	1 flush	1
Urinals	4 LPF	1 flush	2
Faucets / Taps*	6 LPM	15 seconds	8
Kitchen Sink*	6 LPM	15 seconds	6
Health Faucet*	6 LPM	15 seconds	1
Showerhead / Hand-held Spray*	10 LPM	8 Minutes	1

Source: Uniform Plumbing Code – India

** Reporting pressure for these fixtures shall be at 4 bar.*

*** 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.*

Notes:

- *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'.*
- *The baseline flows can be demonstrated at a flowing water pressure of 4 bar. Flowing water pressure of 4 bar does not mean that the water supply in the building is at 4 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 bar.*
- *Default occupancy shall be considered as 50% for male and female.*
- *FTE occupancy shall be considered in calculation, including visitors.*

Demonstrate reduction in water consumption through installation of water efficient plumbing fixtures.

Points are awarded as below:

Percentage of Potable Water Savings over Baseline	Points
> 20 %	1
> 25 %	2
> 30 %	3
> 35 %	4

(OR)

Option 2: Water Use Intensity *(Applicable only for Existing Campus)* **1-4 points**

Demonstrate that the project has savings over baseline WUI of 45 liters per FTE per day.

$$\text{Water Use Intensity (WUI) (L/FTE/Day)} = \frac{\text{Total annual potable water consumption (L)}}{\text{Total FTE x Number of operational days.}} < \textbf{45 litres /FTE/day}$$

Notes:

- *Full Time Equivalent- 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.*
- *For residential / 24-hour occupancy buildings (e.g., hostels, staff housing, service apartments), each occupant shall be considered as 3 FTE, based on normalization to an 8-hour occupancy basis.*
- *For mixed-use campuses, total FTE shall be the sum of FTE from all building types, including residential (converted to equivalent FTE)*

Percentage savings over baseline WUI	Points
> 20 %	1
>25%	2
> 30 %	3
> 35 %	4

Exemplary Performance:

Energy Efficiency:
The project is eligible for exemplary performance if the EPI ratio of campus is below 0.71 or EPI for Existing Campus, as per the table below:

30	**Basic Amenities**	**SPM CR3** **Compliance Options**	<table><tr><th>Percentage conditioned area</th><th>EPI Range</th></tr><tr><td>Less than 25%</td><td>< 28</td></tr><tr><td>25% - 50%</td><td>< 38</td></tr><tr><td>50%-75%</td><td>< 56</td></tr><tr><td>Above 75%</td><td>< 74</td></tr><tr><td>95% and above</td><td>< 88</td></tr></table> **Water Efficiency:** The project is eligible for exemplary performance if more than 40% of water savings is demonstrated over the baseline consumption for Water Efficient Plumbing Fixtures or Water Use Intensity (Existing Campus). **Existing Text:** **Complaince Options:** Provide atleast seven basic amenities within the campus, with pedestrian access. **Notes:** • *Basic amenities within a walking distance of 800 meters from the campus entrance(s) can also be considered to show compliance.* • *The basic amenities shall be functional at the time of project completion.* • *All amenities are to be considered only once.* • *The amenities shall be accessible to campus occupants and visitors.*

			List of Basic Amenities: ❖ Accommodation facilities (Guest house, Hotel, Service apartment) ❖ ATM / Bank ❖ Automobile refuelling station ❖ Cafeteria/ Restaurant ❖ Educational facilities (Crèche, Primary School, & Secondary School) ❖ Hospital ❖ Laundry / Dry cleaners ❖ Leisure & Entertainment facilities (Auditorium, Amphitheatre, Theatre, etc.,) ❖ Park / Garden ❖ Post office / Courier service ❖ Retail Stores (Grocery store, Supermarket, etc.,) ❖ Saloon **Exemplary Performance:** This credit is not eligible for exemplary performance **New Text:** **Compliance Options:** Provide atleast seven basic amenities within the campus, with pedestrian access. **Notes:** • *Basic amenities within a walking distance of 800 meters from the campus entrance(s) can also be considered to show compliance.* • *The basic amenities shall be functional at the time of project completion.* • *All amenities are to be considered only once.* • *The amenities shall be accessible to campus occupants and visitors.*

			List of Basic Amenities: ❖ Accommodation facilities (Guest house, Hotel, Service apartment) ❖ ATM / Bank ❖ Automobile refuelling station ❖ Cafeteria/ Restaurant ❖ Educational facilities (Crèche, Primary School, & Secondary School) ❖ Hospital ❖ Laundry / Dry cleaners ❖ Leisure & Entertainment facilities (Auditorium, Amphitheatre, Theatre, etc.,) ❖ Park / Garden ❖ Post office / Courier service ❖ Retail Stores (Grocery store, Supermarket, etc.,) ❖ Saloon ❖ Pharmacy ❖ Stationery Store/ Xerox/ Print Store ❖ Vehicle Repair shop/ Service center ❖ Utility Bill Payment Center (Electricity/ Water). **Exemplary Performance:** This credit is not eligible for exemplary performance. **Existing Text:** **Compliance Options:** Demonstrate that the campus has retained/preserved existing site features such as vegetation, rocks, topography and/or water bodies as below:

Percentage of Existing Site Area Preserved/ Retained	Points
20	1
30	2

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if more than 40% of the site area is provided with green cover/ vegetation.

Documentation Required:

Precertification

i. Narrative describing the strategies proposed to retain the existing landscape, existing natural rocks, preserve or transplant existing trees, site contour, and existing water bodies and channels, as applicable

ii. Conceptual site survey plan/ sectional drawings showing the retention/ preservation measures for each of the site features, before and after development, as applicable:

- Existing landscape, without any disturbance whatsoever
- Existing natural rocks
- Preserve existing trees
- Site contour
- Existing water bodies and channels

iii. Tentative calculations indicating the site features retained/ preserved, before and after

			development, in percentage ***<u>Certification</u>*** i. Narrative describing the strategies implemented to retain the existing landscape, existing natural rocks, preserve or transplant existing trees, site contour, and existing water bodies and channels, as applicable ii. Site survey plan/ Sectional drawings showing the retention/ preservation measures for each of the following site features, before and after development, as applicable: • Existing landscape, without any disturbance whatsoever • Existing natural rocks • Preserve existing trees • Site contour • Existing water bodies and channels iii. Calculations indicating the site features retained/ preserved, before and after development, in percentage iv. Photographs showing the site features retained/ preserved, before and after development
31	**Ecology & Biodiveristy Conser vation**	**SPM CR4** **Credit Name, Compliance Options and Documentati on Required**	**<u>New Text:</u>** **<u>Compliance Options:</u>** **Option 1: Site Preservation** *(Applicable only for New Campuses)* Demonstrate that the campus has retained/preserved existing site features such as vegetation, rocks, topography and/or water bodies as below:

Percentage of Existing Site Area Preserved/ Retained	Points
20	1
30	2

Option 2: Biodiversity Index *(Applicable only for Existing Campuses)*

Conduct a biodiversity assessment within the campus boundary and calculate the Biodiversity Index using the Shannon-Wiener Diversity Index (H′).

The Shannon-Wiener Index is used to quantify the species diversity and abundance of vegetation present within the campus.

$$H' = -\sum(pi \cdot \ln(pi))$$

Where

H'= Shannon Weiner Diversity Index

pi = Proportion of individuals of the species

ln(pi) = Natural logarithm (base e)

pi= Number of individuals of species(i) / Total number of individuals of all species.

The biodiversity survey shall include all trees, shrubs, and major plant species within landscaped and natural areas of the campus. Points are awarded as below:

H' Value	Interpretation	Points
1.0-2.0	Moderate Biodiversity	1
2.0 – 2.5	High Biodiversity	2
> 2.5	Very High Biodiversity	Exemplary Performance

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if more than 40% of the site area is provided with green cover/ vegetation or if Shannon-Wiener Diversity Index (H′) >2.5

Documentation Required:

Precertification

iv. Narrative describing the strategies proposed to retain the existing landscape, existing natural rocks, preserve or transplant existing trees, site contour, and existing water bodies and channels, as applicable

v. Conceptual site survey plan/ sectional drawings showing the retention/ preservation measures for each of the site features, before and after development, as applicable:

- Existing landscape, without any disturbance whatsoever
- Existing natural rocks
- Preserve existing trees

			• Site contour • Existing water bodies and channels vi. Tentative calculations indicating the site features retained/ preserved, before and after development, in percentage ***Certification*** **Option 1 Site Preservation** v. Narrative describing the strategies implemented to retain the existing landscape, existing natural rocks, preserve or transplant existing trees, site contour, and existing water bodies and channels, as applicable vi. Site survey plan/ Sectional drawings showing the retention/ preservation measures for each of the following site features, before and after development, as applicable: • Existing landscape, without any disturbance whatsoever • Existing natural rocks • Preserve existing trees • Site contour • Existing water bodies and channels vii. Calculations indicating the site features retained/ preserved, before and after development, in percentage viii. Photographs showing the site features retained/ preserved, before and after development.

			Option 2 Biodiversity Index i. Narrative describing the natural biodiversity in the project indicating native flora and fauna species along with measures to conserve them. ii. Documentation of Flora- List of flora with scientific nomenclature and note any rare/threatened species. iii. Photographs of varied flora in the resort facility. iv. Documentation of Fauna- List of animal, bird, reptile, amphibian, and insect species observed on or around the site along with migratory birds. v. Photographs of varied fauna in the campus. vi. Map of the campus facility indicating the zones with rich biodiversity or specific habitat value. vii. Map of the campus facility highlighting the conservation measures implemented across different zones. viii. Photographs of the various conservation measures implemented in the campus facility.

<table>
<tr>
<td>34</td>
<td>Green Cover</td>
<td>SPM CR4

Compliance Options (Notes)</td>
<td>
<u>Existing Text:</u>
<u>Compliance Options:</u>

Option 1: Green Cover or Vegetation

Demonstrate that the campus has retained or restored green cover or vegetation, for atleast 25% of the site area.

Points are awarded as below:

<table>
<tr><th>Percentage of Site Area with Green Cover / Vegetation</th><th>Points</th></tr>
<tr><td>> 25%</td><td>1</td></tr>
<tr><td>> 35%</td><td>2</td></tr>
</table>

<u>Notes:</u>

• 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.

(AND/ OR)

Option 2: Plantation of Tree Saplings:

The green cover shall have minimum 25 trees per acreage or plant tree saplings that can mature into fully grown-up trees with large canopy in the next 5 to 8 years.

Points are awarded as below:
</td>
</tr>
</table>

Minimum number of Tree Saplings per Acre (Including Existing and Transplanted Trees)	Points
25	1
35	2

Notes:

- *If projects apply only for 'Option-2: Plantation of Tree Saplings', then such projects shall have atleast 10% of the site area landscaped*
- *Tree saplings shall be in place at the time of occupancy.*
- *Only native / adaptive tree saplings shall be considered for this credit calculation.*
- *Saplings planted in pots shall not be considered for credit calculations.*
- *Development footprint includes building footprint and other hardscape areas such as parking, footpaths, walkways, roads, grass medians, grass pavers, etc.,*

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if more than 45% of the site area is provided with green cover/ vegetation.

New Text:
Compliance Options:

Option 1: Green Cover or Vegetation

Demonstrate that the campus has retained or restored green cover or vegetation, for atleast 25% of the site area.

Points are awarded as below:

Percentage of Site Area with Green Cover / Vegetation	Points
> 25%	1
> 35%	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.*

(AND/ OR)

Option 2: Plantation of Tree Saplings:

The green cover shall have minimum 25 trees per acreage or plant tree saplings that can mature into fully grown-up trees with large canopy in the next 5 to 8 years.

Points are awarded as below:

Minimum number of Tree Saplings per Acre (Including Existing and Transplanted Trees)	Points
25	1
35	2

			Notes: • *Tree saplings shall be in place at the time of occupancy.* • *Only native / adaptive tree saplings shall be considered for this credit calculation.* • *Saplings planted in pots shall not be considered for credit calculations.* • *Development footprint includes building footprint and other hardscape areas such as parking, footpaths, walkways, roads, grass medians, grass pavers, etc.,* **Exemplary Performance**: The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if more than 45% of the site area is provided with green cover/ vegetation (or) if more than 45 tree saplings per acre are existing or planted.

<table>
<tr>
<td>36</td>
<td>Heat Island Reduction, Roof & Non-roof</td>
<td>SPM Credit 5

Compliance Options
(Points)</td>
<td>
<u>Existing text:</u>
<u>Compliance Options:</u>

❖ Non-roof Impervious Areas 1-3 Points
Implement green measures to minimize Urban Heat Island effect by covering at least 60% of non-roof impervious areas

Points are awarded as below:

<table>
<tr><th>Percentage of shaded/ covered non-roof area</th><th>Points (New Campus)</th><th>Points (Existing Campus)</th></tr>
<tr><td>> 60 %</td><td>1</td><td>2</td></tr>
<tr><td>> 80 %</td><td>2</td><td>3</td></tr>
</table>

Area factor calculation for Non-roof impervious areas to minimize the effect of Urban Heat Island
<table>
<tr><th>Mitigation Measure</th><th>Non-roof impervious areas</th></tr>
<tr><td>Tree Cover</td><td>1.2</td></tr>
<tr><td>Grass Paver/Open Grid</td><td>0.9</td></tr>
<tr><td>Hardscape materials with SRI of atleast 29 (and not higher than 64).</td><td>0.8</td></tr>
</table>
<u>Notes</u>:

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.,
1.2, 0.9 and 0.8 are coefficients to calculate effective non-roof area.
Trees / Saplings shall be in place at the time of certification.
Artificial vegetation shall not be considered.

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

- *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*

❖ **Roof Areas** **1-3 Points**

Implement green measures to minimize Urban Heat Island effect by covering atleast 80% of the exposed roof area. Points are awarded as below:

Percentage of roof area covered with High Reflective Material	Points (*New Campus*)	Points *(Existing Campus)*
> 80 %	1	2
100 %	2	3

Area factor calculation for Exposed roof to minimize the effect of Urban Heat Island

Mitigation Measure	Roof impervious areas
High SRI Coating	0.8
High SRI Tile	1
Vegetation	1.2

Solar Reflective Index (SRI) values for different roof types

Roof Type	Slope	Minimum SRI Value	Maximum SRI Value
Low-sloped roof	< 2:12	78	-
Steep-sloped roof	> 2:12	29	64

Notes:

- *Exposed roof area does not include equipment platforms, areas with Solar Photovoltaic (SPV) & Solar Water Heaters (SWH), skylights, etc.*
- *0.8, 1 and 1.2 are coefficients to calculate effective roof area.*
- *Exposed parking area covered with either metal roof or permanent concrete structure would be considered under roof area calculation, else parking area would be considered under Non-roof area calculation.*
- *SRI (Solar Reflective Index) value of high reflectance materials should be as per ASTM Standards.*
- *Lift / staircase headroom shall be considered as exposed roof area.*

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process If more than 100% of exposed non-roof and roof areas are meeting the compliance requirements.

New Text:
Compliance Options:

❖ **Non-roof Impervious Areas** **1-2 Points**

Implement green measures to minimize Urban Heat Island effect by covering at least 60% of non-roof impervious areas.

Points are awarded as below:

Percentage of shaded/ covered non-roof area	Points (*New Campus*)	Points *(Existing Campus)*
> 60 %	1	1
> 80 %	2	2

Area factor calculation for Non-roof impervious areas to minimize the effect of Urban Heat Island

Mitigation Measure	Coefficient
Tree Cover	1.2
Grass Paver/Open Grid	0.9
Hardscape materials with SRI of atleast 29 (and not higher than 64).	0.8

Mitigated Non-Roof Area =

∑ Area covered by Mitigation Measure X Coefficient for Mitigation Measure

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.,*
- *1.2, 0.9 and 0.8 are coefficients to calculate mitigated non-roof area.*
- *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.*

❖ **Roof Areas** **1-2 Points**

Implement green measures to minimize Urban Heat Island effect by covering atleast 80% of the exposed roof area.

Points are awarded as below:

Percentage of roof area covered with High Reflective Material	Points (*New Campus*)	Points *(Existing Campus)*
> 80 %	1	1
100 %	2	2

Area factor calculation for Exposed roof to minimize the effect of Urban Heat Island

Mitigation Measure	Coefficient
High SRI Coating	0.8
High SRI Tile	1
Vegetation	1.2

Mitigated Roof area =
∑ Area covered by Mitigation Measure X Coefficient for Mitigation Measure

Solar Reflective Index (SRI) values for different roof types

Roof Type	Slope	Minimum SRI Value	Maximum SRI Value
Low-sloped roof	< 2:12	78	-
Steep-sloped roof	> 2:12	29	64
Podium/ Basement roof	-	29	64

Notes:

- *All roof areas, including podium, covered surface parking, utility blocks and areas covered with elevated solar photovoltaic/ Bifacial PVs (1.8 m above ground), which are exposed to the sky (at and above ground level) shall be considered for this credit calculation.*
- *Projects with solar PV and solar water heaters mounted in contact with the roof can include the area covered with Solar PV as a strategy to mitigate heat island effect*

			• *Exposed roof area does not include equipment platforms, areas with Solar Photovoltaic (SPV) & Solar Water Heaters (SWH), skylights, etc.* • *0.8, 1 and 1.2 are coefficients to calculate mitigated roof area.* • *Exposed parking area covered with either metal roof or permanent concrete structure would be considered under roof area calculation, else parking area would be considered under Non-roof area calculation.* • *SRI (Solar Reflective Index) value of high reflectance materials should be as per ASTM Standards.* • *Lift / staircase headroom shall be considered as exposed roof area.* • *Artificial vegetation shall not be considered.* **Exemplary Performance**: The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process If more than 100% of exposed non-roof and roof areas are meeting the compliance requirements.

45	**Bicycle Network** **Sustainable Campus Mobility**	**ST Credit 2** **Credit Name, Compliance Options & Documentation Required**	**Existing text:** **Compliance Options**: **Bicycle Network:** **1 Point** ➢ Design dedicated bicycle lane network within the campus to connect to all main buildings and basic amenities. ➢ Provide adequate illumination (Lux levels) for pedestrian network within the campus, as per National Building Code of India, Part 8 - Building Services, Section - 1 Lighting and Ventilation, Table - 4 Recommended Values of Illuminance. The code recommends lux levels in the range 30 to 100. **(AND/OR)** **Bicycle Parking:** **1 Point** ➢ Provide dedicated bicycle parking at all main buildings/ basic amenities, within a walking distance of 100 meters. ***Note:*** ➢ *The compliance can be shown only for primary and secondary roads & streets.* **Exemplary Performance**: This credit is not eligible for exemplary performance.

			Documentation Required: ***Precertification*** **Bicycle Network:** i. Conceptual site plan showing the dedicated bicycle lane network within the campus between main buildings & basic amenities ii. Declaration letter confirming that the bicycle network within the campus will be designed with adequate illumination as per NBC of India **Bicycles Parking:** i. Conceptual site plan showing the designated bicycle parking areas at all main buildings/ basic amenities, within a walking distance of 100 meters ***Certification*** **Bicycle Lane Network:** i. Site plan showing dedicated bicycle lane network within the campus between main buildings & basic amenities ii. Table showing illumination levels for bicycle lane network within the campus as per NBC of India **Bicycles Parking:** i. Site plan showing the designated bicycle parking areas at all main buildings/ basic amenities, within a walking distance of 100 meters ii. Photographs of permanent signages provided for designated bicycle parking along with racks provided for bicycle parking

			New Text: **Compliance Options:** **Option 1: Bicycle Network** **2 Points** ➢ Provide dedicated Bicycle network- connecting all main buildings with adequate illumination between 30 to 100 lux level (1 point) ➢ Provide dedicated bicycle parking at all main buildings/ basic amenities, within a walking distance of 100 meters (1 point) **(OR)** **Option 2: Eco friendly Shuttle** **2 Points** Provide electric shuttles catering to at least 5% of campus occupants, connecting main buildings within campus. **Exemplary Performance:** This credit is not eligible for exemplary performance. **Documentation Required:** ***Precertification*** **Option 1: Bicycle Network** iii. Conceptual site plan showing the dedicated bicycle lane network within the campus between main buildings & basic amenities iv. Declaration letter confirming that the bicycle network within the campus will be designed with adequate illumination as per NBC of India.

			v. Conceptual site plan showing the designated bicycle parking areas at all main buildings/ basic amenities, within a walking distance of 100 meters **Option 2: Eco friendly Shuttle** i. Declaration letter confirming that the Eco friendly shuttle shall be provided within the campus will be provided. ii. Tentative calculations indicating the number of campus occupants in percentage catered through eco friendly shuttle. iii. Tentative details of shuttle services - type (fuel used) and number of vehicles, frequency (peak and non-peak hours), seating capacity, route details (boarding & destination points), etc., iv. Site plan showing the alighting point of shuttle services ***Certification*** **Bicycle Lane Network:** iii. Site plan showing dedicated bicycle lane network within the campus between main buildings & basic amenities iv. Table showing illumination levels for bicycle lane network within the campus as per NBC of India. v. Site plan showing the designated bicycle parking areas at all main buildings/ basic amenities, within a walking distance of 100 meters vi. Photographs of permanent signages provided for designated bicycle parking along with racks provided for bicycle parking. **Option 2: Eco Friendly Shuttle** i. Calculations indicating the number of campus occupants catered through eco friendly shuttle in the premises.

47	**Access to Sustainable Transportation**	**ST Credit 3** **Compliance Options**	ii. Photographs of eco friendly shittle service being used in the campus premises. iii. Details of shuttle services - type (fuel used) and number of vehicles, frequency (peak and non-peak hours), seating capacity, route details (boarding & destination points), etc., iv. Site plan showing the alighting point of shuttle services **Existing Text:** **Compliance Options:** ➢ **Option 1: Public Transport** **1 Point** Provide access to a public transportation facility (bus-stop/ intra-city railway station), within 800 meters walking distance from the campus entrance(s). **(OR)** ➢ **Option 2: Shuttle Service** **1 Point** **Electric/ CNG-powered Vehicles** Operate or have a contract in place for electric/ CNG-powered vehicles within or outside the campus as shuttle services, to cater atleast 20% of the campus occupants during the peak hours. Additionally, the project shall install electric charging facilities within the projects' parking area to cater to the electric vehicles (or) the project shall have atleast one CNG filling station within 5 km distance from the projects' campus entrance. **(AND/OR)**

➢ **Option 3-Electric Vehicle Charging Infrastructure** **2 Points**

Provide Electric Vehicle Charging Infrastructure (EVCI)* for electric vehicles within the site as indicated below (including visitor's parking):

% of EVCI out of Total Four/Two wheeler Parking Capacity	Credit Points
5%	1
10%	2

Notes:

- **The project must follow the latest local building regulations/byelaws for EVCI recommendations or provide EVCI as per the Charging Infrastructure of Electric Vehicle (EV)-Revised consolidates guidelines and standards, Ministry of Power, GOI.*
- *Electric Vehicle Charging Infrastructure/ Electric Vehicle Supply Equipment- Electric Vehicle Charging Infrastructure (EVCI) comprises the charger, socket, supporting power, communication, and safety systems.*

New Text:
Compliance Options:

➢ **Option 1: Public Transport** **1 Point**

Provide access to a public transportation facility (bus-stop/ intra-city railway station), within 800 meters walking distance from the campus entrance(s).

(OR)

➢ **Option 2: Shuttle Service** **1 Point**
Electric/ CNG-powered Vehicles

Operate or have a contract in place for electric/ CNG-powered vehicles as shuttle services catering atleast 20% of the campus occupants to nearby public transport facilities.

Additionally, the project shall install electric charging facilities within the projects' parking area to cater to the electric vehicles (or) the project shall have atleast one CNG filling station within 5 km distance from the projects' campus entrance.

(AND/OR)

➢ **Option 3-Electric Vehicle Charging Infrastructure** **2 Points**

Provide Electric Vehicle Charging Infrastructure (EVCI)* for electric vehicles within the site as indicated below (including visitor's parking):

% of EVCI out of Total Four/ Two wheeler Parking Capacity	Credit Points
3%	1
5%	2

Notes:

➢ **The project must follow the latest local building regulations/byelaws for EVCI recommendations or provide EVCI as per the Charging Infrastructure of Electric Vehicle (EV)-Revised consolidates guidelines and standards, Ministry of Power, GOI.*

			➢ *Electric Vehicle Charging Infrastructure/ Electric Vehicle Supply Equipment- Electric Vehicle Charging Infrastructure (EVCI) comprises the charger, socket, supporting power, communication, and safety systems.* **Exemplary Performance**: The project is eligible for exemplary performance under ID Credit 1 – Innovation in Design Process if it complies with Option 3: Electric Vehicle Charging Infrastructure, with 7% of the total four-wheeler and two-wheeler parking capacity provided with EVCI meeting the compliance requirements.

<table>
<tr>
<td>54</td>
<td>Enhanced Rainwater Harvesting</td>
<td>WC CR1

Compliance Options & Documentation required- Existing Campus</td>
<td>
<u>Existing Text:</u>
<u>Compliance Option:</u>
❖ Option 1: Rainwater Harvesting 6 Points
Design rainwater harvesting system to capture/ percolate atleast ‘one-day rainfall*’ runoff volume from roof and non-roof areas.

*One-day rainfall can be derived from ‘percentage of average peak month rainfall’ given in Table below.

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

Points are awarded as below:

Criteria to arrive at ‘One-day Rainfall’
<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Average Peak Month Rainfall (mm)</th><th colspan="3">One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><th>2 points</th><th>4 points</th><th>6 points</th></tr>
<tr><td>1</td><td>Upto 250</td><td>12%</td><td>15%</td><td>18%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>10%</td><td>12.5%</td><td>15%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>8%</td><td>10%</td><td>12%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>6%</td><td>7.5%</td><td>9%</td></tr>
<tr><td>5</td><td>701 & above</td><td>4%</td><td>5%</td><td>6%</td></tr>
</table>
</td>
</tr>
</table>

			❖ **Option 2: High Groundwater Table** **6 Points** Design rainwater harvesting system to capture/ percolate atleast 'one-day rainfall*' runoff volume from roof and non-roof areas. **One-day rainfall can be derived from 'percentage of average peak month rainfall' given in Table below.* *To arrive at average peak month rainfall, consider an average of atleast last 5 years peak month rainfall (of the respective year).* ***Notes*:** • *For rainfall information, refer Indian Meteorological Department data at http://www.imd.gov.in WC Mandatory Requirement 1 - Rainwater Harvesting* • *Runoff volume = Surface area x Runoff Coefficient x Rainfall.* *For run-off coefficients for typical surface types, refer Table on Run-off coefficients for Typical Surface Types.* • *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 ID Credit 1 - Innovation in Design Process, if rainwater runoff from roof & non-roof areas is captured and / or recharged, as per Table listed below:

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

S No	Average Peak Month Rainfall (mm)	One-day Rainfall (% of Average Peak Month Rainfall)	
		Case A: Rainwater Harvesting	Case B: High Groundwater Table
1	Upto 250	21%	15%
2	251 – 350	17.5 %	12.5 %
3	351 – 500	14%	10%
4	501 – 700	10.5 %	7.5%
5	700 & above	7%	5%

			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 ii. Narrative describing the strategies proposed to capture/ harvest rain water from roof and non-roof areas iii. Tentative calculations indicating the run-off volume captured/ harvested from roof and non-roof areas and the volume of rainwater harvesting pits/tanks. iv. Conceptual external storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings

			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 ii. Narrative describing the strategies implemented to capture/ harvest rain water from roof and non-roof areas iii. Calculations indicating the run-off volume captured/ harvested from roof and non-roof areas and the volume of rainwater harvesting pits/tanks. iv. 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 v. Photographs of rain water harvesting systems, taken during and after construction

New Text:

Compliance Option:

❖ **Option 1: Rainwater Harvesting** **6 Points**

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

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

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

Points are awarded as below:

Criteria to arrive at 'One-day Rainfall' for both Option 1&2

S No	Average Peak Month Rainfall (mm)	One-day Rainfall (% of Average Peak Month Rainfall)		
		2 points	4 points	6 points
1	Upto 250	12%	15%	18%
2	251 – 350	10%	12.5%	15%
3	351 – 500	8%	10%	12%
4	501 – 700	6%	7.5%	9%
5	701 & above	4%	5%	6%

❖ **Option 2: High Groundwater Table** **6 Points**

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

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

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

***Notes*:**

- *For rainfall information, refer Indian Meteorological Department data at http://www.imd.gov.in WC Mandatory Requirement 1 - Rainwater Harvesting*
- *Runoff volume = Surface area x Runoff Coefficient x Rainfall.*
  For run-off coefficients for typical surface types, refer Table on Run-off coefficients for Typical Surface Types.
- *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 ID Credit 1 - Innovation in Design Process, if rainwater runoff from Roof & Non roof areas under Option 1 and from Roof areas under Option 2 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

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 ii. Narrative describing the strategies proposed to capture/ harvest rain water from roof areas iii. Tentative calculations indicating the run-off volume captured/ harvested from roof and the volume of rainwater harvesting pits/tanks. iv. Conceptual external storm water drain layout highlighting the location of rain water harvesting - ponds, pits, storage tanks, etc., as applicable, including cross-sectional drawings ***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

<table>
<tr><td></td><td></td><td></td><td>locations within the project site
ii. Narrative describing the strategies implemented to capture/ harvest rain water from roof areas
iii. Calculations indicating the run-off volume captured/ harvested from roof and the volume of rainwater harvesting pits/tanks.
iv. 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
v. Photographs of rain water harvesting systems, taken during and after construction</td></tr>
<tr><td>57</td><td>Sustainable Landscape</td><td>WC CR2

Compliance Options (Notes)</td><td><u>Existing Text:</u>
<u>Compliance Option:</u>
Limit use of turf in the campus to conserve water and / or ensure that landscaped area is planted with drought tolerant / native / adaptive species (excluding turf species).

<u>Note</u>:
• This credit is applicable only for those projects which have atleast 10% of the site area landscaped.

Points are awarded as below:

<table>
<tr><th>Type of Landscape</th><th>Percentage of Total Landscaped area</th><th>Points</th></tr>
<tr><td>Turf Area</td><td>≤ 20%</td><td>1</td></tr>
<tr><td>Drought Tolerant/ Native / Adaptive Species Area</td><td>≥ 60%</td><td>1</td></tr>
</table>
</td></tr>
</table>

Notes:

- *The landscape hererefers to soft landscaping, which includes only pervious vegetation.*
- *Drought tolerant species are those species that do not require supplemental irrigation. Generally accepted time frame for temporary irrigation is 1 to 2 years.*
- *Football ground/ play areas designed with turf areas must be considered under this credit calculations.*
- *Vegetation on the ground and vegetation over built structures such as roofs, basement, podiums, etc., shall be considered.*
- *Potted plants shall not be considered as vegetation.*
- *Areas planted with turf should not exceed a slope of 25 percent (i.e. 4 to 1 slope).*

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if more than 80% of the landscaped area is planted with drought tolerant / native / adaptive species.

New Text:

Compliance Option:

Limit use of turf in the campus to conserve water and / or ensure that landscaped area is planted with drought tolerant / native / adaptive species (excluding turf species).

Points are awarded as below:

Type of Landscape	Percentage of Total Landscaped area	Points
Turf Area	≤ 20%	1
Drought Tolerant/ Native / Adaptive Species Area	≥ 60%	1

Notes:

			• *The landscape hererefers to soft landscaping, which includes only pervious vegetation.* • *Drought tolerant species are those species that do not require supplemental irrigation. Generally accepted time frame for temporary irrigation is 1 to 2 years.* • *Football ground/ play areas designed with turf areas must be considered under this credit calculations.* • *Vegetation on the ground and vegetation over built structures such as roofs, basement, podiums, etc., shall be considered.* • *Potted plants shall not be considered as vegetation.* • *Areas planted with turf should not exceed a slope of 25 percent (i.e. 4 to 1 slope).* **Exemplary Performance:** The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if more than 80% of the landscaped area is planted with drought tolerant / native / adaptive species.
61	**Optimise Water Use for Construction**	**WC CR 5** **Compliance Option**	**<u>Existing Text:</u>** **<u>Compliance Option:</u>** Demonstrate that the project has reduced atleast 50% of the potable water required for campus infrastructural construction activities (concrete mixing, plastering works and curing), as compared to national and international practices, with the use of: ❖ Treated waste water ❖ Admixtures & curing compounds ❖ Any other innovative measures Ensure that the quality of construction is not compromised by reducing potable water requirement or by reusing treated waste water.

			(AND) The treated waste water shall meet the quality standards suitable for reuse during construction, as prescribed by: ❖ Bureau of Indian Standards (BIS) – Plain and Reinforced Concrete (Code of Practice) IS 456 : 2000, Section 2 - Materials, Workmanship, Inspection and Testing, 5.4 - Water, 'Table 1 - Permissible Limit for Solids' **(Or)** ❖ Central (or) State Pollution Control Board ***Notes:*** • *Treated waste water from other sites/ local authorities through piped connections or other means can also be considered to show compliance.* • *The baseline water requirement for construction activities shall be defined by the project team with supporting calculations.* **Exemplary Performance:** This credit is not eligible for exemplary performance. **New Text:** **Compliance Option:** Demonstrate that the project has reduced atleast 10% of the potable water required for campus infrastructural construction activities (concrete mixing, plastering works and curing), as compared to national and international practices, with the use of: ❖ Treated waste water

			❖ Admixtures & curing compounds ❖ Any other innovative measures Ensure that the quality of construction is not compromised by reducing potable water requirement or by reusing treated waste water. **(AND)** The treated waste water shall meet the quality standards suitable for reuse during construction, as prescribed by: ❖ Bureau of Indian Standards (BIS) – Plain and Reinforced Concrete (Code of Practice) IS 456 : 2000, Section 2 - Materials, Workmanship, Inspection and Testing, 5.4 - Water, 'Table 1 - Permissible Limit for Solids' **(Or)** ❖ Central (or) State Pollution Control Board ***Notes:*** • *Treated waste water from other sites/ local authorities through piped connections or other means can also be considered to show compliance.* • *The baseline water requirement for construction activities shall be defined by the project team with supporting calculations.* **Exemplary Performance:** This credit is not eligible for exemplary performance.

64	**Water Performance Monitoring**	**WC CR 6** **Compliance Option & Documentation Required**	**Existing Text:** **Compliance Option:** ❖ **Water Monitoring** **2 Points** Demonstrate sub-metering for atleast three of the following water use applications, as applicable: *(1 point for every three measures; maximum 2 points)* • Total potable water quantity (Municipal/Borewell/ tankers etc.) on daily/ monthly basis • Total potable water usage through water fixtures (kitchen, handwash etc.) • Total Treated wastewater • Total water usage for irrigation (potable and non-potable) • Total water usage for flushing • Total water usage for CT make-up water • Process water consumption • Total rainwater reused for process or non-process application. • Any other major consumers of water consumption, as applicable **(AND/OR)** ❖ **Water Dashboard** **1-2 Points** Demonstrate online water monitoring system to ensure continuous water performance of all meters installed on daily or monthly basis (project shall share water performance data with IGBC for feedback). Water dashboard would enable the project to understand water balance. *(1 point for new campus; 2 points for existing campus)* **Exemplary Performance:** This credit is not eligible for exemplary performance. **Documentation Required:**

			Precertification i. Narrative describing the list of water meters and details of real time water monitoring system proposed in the project ii. Schematic diagram showing the location of water meters, proposed in the project iii. Manufacturer cut-sheets/ specifications of the real time water monitoring system proposed in the project iv. Declaration letter confirming the provision of water dashboard and water meters for monitoring ***Certification*** 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 and real time water monitoring dashboard. v. Photographs of the installed water meters and water monitoring dashboard vi. Purchase invoice of the installed water meters and water monitoring dashboard **New Text:** **Compliance Option:** Demonstrate sub-metering for atleast three of the following water use applications, as applicable: *(1 point for every three measures; maximum 2 points)* • Total potable water quantity (Municipal/Borewell/ tankers etc.) on daily/ monthly basis • Total potable water usage through water fixtures (kitchen, handwash etc.) • Total Treated wastewater

			• Total water usage for irrigation (potable and non-potable) • Total water usage for flushing • Total water usage for CT make-up water • Process water consumption • Total rainwater reused for process or non-process application. • Any other major consumers of water consumption, as applicable. **Exemplary Performance:** This credit is not eligible for exemplary performance. **Documentation Required:** ***Precertification*** i. Narrative describing the list of water meters and details of real time water monitoring system proposed in the project ii. Schematic diagram showing the location of water meters, proposed in the project ***Certification*** 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
67	**Enhanced Energy Efficiency**	**EE CR 2** **Compliance Option**	**Existing Text:** **Compliance Option:**

For all infrastructural equipment/ systems within the campus, achieve energy efficiency for the following systems: *(maximum 10 points)*

- **Lighting Systems:**
  - **Exterior Lighting:** **3 Points**

Option 1: Lighting Power Density

Reduce lighting power density by atleast 40% for exterior areas over ASHRAE Standard 90.1-2019, Section 9.4.2 - Exterior Building Lighting Power baseline.

Reduction in Lighting Power Density for Exterior Areas	Points
≥ 40%	1
≥ 45%	2
≥ 50%	3

(OR)

Option 2: Lighting Load reduction

Demonstrate reduction in exterior lighting load of the campus by retrofitting with energy efficient lighting fixtures.

Reduction in Lighting Load for Exterior Areas	Points
≥ 5%	1
≥ 10%	2
≥ 20%	3

(AND/OR)

- **Lighting Controls:** **1-2 Points**

  Demonstrate that 80% of all non-emergency exterior & common area lighting such as landscaping, surface and covered parking, pathways, bicycle lanes, street lighting have Daylight sensor/ Timer-based controls. *(1 point)*

  (OR)

  Demonstrate that lighting management system has been installed in the campus to control at least 80% of all non-emergency exterior & common area lighting such as landscaping, surface and covered parking, pathways, bicycle lanes, street lighting. (2 points)

  (AND/OR)

  ➢ **Motors:** **1-3 Points**

  Motors shall have minimum efficiencies as listed below:

Motor Efficiency	**Percentage of total connected load of Motors in the campus**	**Points (*New Campus*)**
IE 3	100%	1
IE 4	50%	2

Motor Efficiency	Percentage of total connected load of Motors in the campus	Points (*Existing Campus*)
IE 3	50%	1
IE 3	100%	2
IE 4	50%	3

Notes:

- *All electrical motors used in pumps and fans for any application in the campus shall be considered*
- *In case of combination of IE 3 & IE 4 motors installed in the campus, weighted average load calculation shall be followed to achieve credit points.*

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if Lighting Power Density (LPD) is reduced by atleast 60% for exterior areas over ASHRAE Standard 90.1-2019 baseline or if total exterior lighting load of the campus is reduced by 25% through retrofitting.

New Text:
Compliance Option:

For all infrastructural equipment/ systems within the campus, achieve energy efficiency for the following systems: *(maximum 4 points)*

- **Lighting Systems:**
- **Exterior Lighting:** **1-2 Points**

Option 1: Lighting Power Density

Reduce lighting power density by atleast 40% for exterior areas over ASHRAE Standard 90.1-2019, Section 9.4.2 - Exterior Building Lighting Power baseline.

Reduction in Lighting Power Density for Exterior Areas	Points
≥ 40%	1
≥ 50%	2

(OR)

Option 2: Lighting Load reduction

Demonstrate reduction in exterior lighting load of the campus by retrofitting with energy efficient lighting fixtures.

Reduction in Lighting Load for Exterior Areas	Points
≥ 10%	1
≥ 20%	2

(AND/OR)

- **Lighting Controls:** **1 Point**

  Demonstrate that 80% of all non-emergency exterior & common area lighting such as landscaping, surface and covered parking, pathways, bicycle lanes, street lighting have Daylight sensor/ Timer-based controls. *(1 point)*

  (AND/OR)

➢ **Motors:** **1-2 Points**

Motors shall have minimum efficiencies as listed below (Maximum of 2 points can be achieved by meeting any one of the below criteria):

Motor Efficiency	Percentage of total connected load of Motors in the campus	Points
IE 3	50%	1
IE 3	100%	2
IE 4	50%	2

Notes:

- *All electrical motors used in pumps and fans for any application in the campus shall be considered*
- *In case of combination of IE 3 & IE 4 motors installed in the campus, weighted average load calculation shall be followed to achieve credit points.*

Exemplary Performance:

<table>
<tr><td></td><td></td><td></td><td>The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if Lighting Power Density (LPD) is reduced by atleast 60% for exterior areas over ASHRAE Standard 90.1-2019 baseline or if total exterior lighting load of the campus is reduced by 30% through retrofitting.</td></tr>
<tr><td>70</td><td>Green Power</td><td>EE CR 3

Compliance Option & Documentation Required</td><td><u>Existing Text:</u>
<u>Compliance Option:</u>
❖ Option -1: On-site Renewable Energy 5 Points
Install on-site renewable energy system to off-set fossil-fuel based energy consumption. Credit points are awarded based on the percentage of total annual energy consumption met by onsite Renewable Energy (RE) system generation.

Points are awarded as below:

<table>
<tr><th>Percentage of total annual energy consumption met by On-Site RE generation</th><th>Points</th></tr>
<tr><td>> 5%</td><td>1</td></tr>
<tr><td>> 10%</td><td>2</td></tr>
<tr><td>> 15%</td><td>4</td></tr>
<tr><td>> 20%</td><td>5</td></tr>
</table>

(AND/ OR)

❖ Option -2: Renewable Energy (Combined) 10 points
Demonstrate that on-site RE generation and (or) wheeling off-site renewable energy replace energy use by at least 20% of total annual energy consumption of the project.

Points are awarded as below:</td></tr>
</table>

Renewable energy as a percentage of total annual energy consumption	Credit Points
20 %	1
30 %	2
40 %	4
50 %	5
60 %	7
70%	9
80 %	10

Notes:

- *On-site energy supply system installation such as fuel cell will be considered as green source of power.*
- *Solar hot water systems cannot be considered as power generation source and cannot be subtracted from the total energy consumed.*
- *Energy through biomass would be considered as green power, project team shall submit calculation to show equivalent energy generation (use).*

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if 90% of grid energy is combined (under option-2) or 25% of annual energy consumption met by on-site RE installed, Option-1.

New Text:
Compliance Option:

❖ **Option -1: On-site Renewable Energy** **5 Points**

Install on-site renewable energy system to off-set fossil-fuel based energy consumption. Credit points are awarded based on the percentage of total annual energy consumption met by onsite Renewable Energy (RE) system generation.

Points are awarded as below:

Percentage of total annual energy consumption met by On-Site RE generation (Owner Occupied Campus)	Percentage of total annual energy consumption met by On-Site RE generation (Tenant Occupied Campus)	Points
> 5%	> 2%	1
> 10%	> 4%	2
> 15%	> 6%	4
> 20%	> 8%	5

(AND/ OR)

❖ **Option -2: Renewable Energy (Combined)** **10 points**

Demonstrate that on-site RE generation and (or) wheeling off-site renewable energy replace energy use of the total annual energy consumption as per the table below:

Points are awarded as below:

Percentage RE of total annual energy consumption (Owner Occupied Campus)	Percentage RE of total annual energy consumption (Tenant Occupied Campus)	Credit Points

10 %	5 %	1
20 %	10 %	2
30 %	15 %	3
40 %	20 %	4
50 %	25 %	5
60%	30 %	6
70 %	35 %	7
80 %	40 %	8
90 %	45 %	9
95 %	50 %	10

Notes:

- *On-site energy supply system installation such as fuel cell will be considered as green source of power.*
- *Solar hot water systems cannot be considered as power generation source and cannot be subtracted from the total energy consumed.*
- *Energy through biomass would be considered as green power, project team shall submit calculation to show equivalent energy generation (use).*

			Exemplary Performance: The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if 25% of annual energy consumption(Owner Occupied) and 10% of annual energy consumption (Tenant Occupied) met by on-site RE installed, under Option-1 or 100% of grid energy is Combined (Owner Occupied) and 55% of grid energy is Combined (Tenant Occupied)
73	**Energy Performance Monitoring**	**EE CR 4** **Compliance Option & Documentation required**	**<u>Existing Text:</u>** **<u>Compliance Option:</u>** **Option 1: Energy Metering*:*** **2 Points** Demonstrate sub-metering for atleast three of the following energy use applications, as applicable: *(1 point for every three measures; maximum 2 points)* • Total energy consumption • Air-conditioning energy usage • Internal lighting energy consumption • External lighting energy consumption • BTU meter for chilled water consumption • Energy meter for process/ non-process energy consumption • Pumping system (municipal water/ grey water/ landscaping water) • Any individual energy end use that constitute at least 10% of total energy use **(And / Or)**

			Option 2: Realtime Energy Performance: **1-2 Points** Demonstrate online energy monitoring system through dashboard (online platform) to visualize daily/ monthly performance. Recorded data shall also be analyzed (shall be submitted to IGBC for feedback) for further improvements. *(1 point for new campus; 2 points for existing campus)* **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: Realtime Energy Performance** 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. iii. Declaration letter from the project owner/ developer stating the various systems that the project will monitor through the Building Management System. ***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 energy meters installed in the project **Option 2: Realtime Energy Performance** 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 campus (not applicable for new campus) iii. I/O summary of the BMS system installed. iv. Photographs showing the systems monitored through the building management system. **New Text:** **Compliance Option:** Demonstrate sub-metering for atleast three of the following energy use applications, as applicable: *(1 point for every three measures; maximum 2 points)* • Total energy consumption • Air-conditioning energy usage • Internal lighting energy consumption • External lighting energy consumption • BTU meter for chilled water consumption • Energy meter for process/ non-process energy consumption

			• Pumping system (municipal water/ grey water/ landscaping water) • Any individual energy end use that constitute at least 10% of total energy use **Exemplary Performance:** This credit is not eligible for exemplary performance. **Documentation Required:** ***Precertification*** i. Narrative describing the energy meters proposed in the project ii. Single line drawing showing the proposed energy meters ***Certification*** i. Narrative describing the energy meters installed in the project. ii. Single line drawing showing the energy meters. iii. Photographs of energy meters installed in the project
81	**Use of Green Products & Equipment**	**MRM CR2** **Compliance Option**	**Existing Text:** **Compliance Option:** **New Campus:** Ensure that the project uses passive or active green building materials, products, and equipment that are eco-labelled/ certified by: • Green Product Certification Programme (GreenPro) • Other Eco-labelling programs

Points are awarded as below:

Number of Eco-labelled/ Certified Green Products used	Points
Civil Materials (atleast 2 nos)	1
Electrical / Mechanical Systems and Equipment (atleast 2 nos)	1
Other Categories (atleast 2 nos) (e.g.: Plumbing fixtures, housekeeping chemicals, furniture etc)	1

Existing Campus:

Ensure that the project uses green products in operation such as *(1 point for each measure):*

- Organic pesticides for landscaping purposes in campus (E.g.: neem oil, neem cake, neem seed powder, etc.)
- Eco-friendly housekeeping chemicals (GreenPro or GS-37 Certified) for all cleaning purposes.
- 100% recycled & chlorine-free papers.
- Plastic free campus- Eliminate use of plastic bottles, single use plastic for carry bags, cutleries etc.,

Notes:

- *Procurement of GreenPro materials shall be assessed based on the quantity of materials procured.*
- *Passive Products & Materials include glazing, insulation, paints & coatings, adhesives & sealants, flyash blocks, cement, concrete, composite wood, certified new wood, housekeeping chemicals, false ceiling materials, flooring materials, furniture, gypsum based products, high reflective materials & coatings, etc., The list of GreenPro certified products can be accessed at* https://ciigreenpro.com/
- *Active Products include Electrical systems (Lighting Systems & Controls, Pumps & Motors, etc.,), Mechanical systems (unitary air conditioners, etc.,), Plumbing Fixtures (faucets, showers, etc.,)*
- *The materials, products and equipment (e.g. high reflective materials, water fixtures, lighting fixtures, carpets, etc.,) certified by CII under Green Product Certification Programme (GreenPro) or any third*

party agency will be accepted to show credit compliance

- *The product/material/equipment certificate must be valid at the time of project certification.*

Exemplary Performance:

This credit is not eligible for exemplary performance.

New Text:

Compliance Option:

New Campus:

Ensure that the project uses passive or active green building materials, products, and equipment that are eco-labelled/ certified by:

- Green Product Certification Programme (GreenPro)
- Other Eco-labelling programs

Points are awarded as below:

Number of Eco-labelled/ Certified Green Products used	Points
Civil Materials (atleast 2 nos)	1
Electrical / Mechanical Systems and Equipment (atleast 2 nos)	1
Other Categories (atleast 2 nos) (e.g.: Plumbing fixtures, housekeeping chemicals, furniture etc)	1

Existing Campus:

Ensure that the project uses green products in operation such as *(1 point for each measure):*

- Organic pesticides for landscaping purposes in campus (E.g.: neem oil, neem cake, neem seed

			powder, etc.) • Eco-friendly housekeeping chemicals (GreenPro or GS-37 Certified) for all cleaning purposes. • 100% recycled & chlorine-free papers. • Biodegradable Garbage liners • Plastic free campus- Eliminate use of plastic bottles, single use plastic for carry bags, cutleries etc., ***Notes:*** • *Procurement of GreenPro materials shall be assessed based on the quantity of materials procured.* • *Passive Products & Materials include glazing, insulation, paints & coatings, adhesives & sealants, flyash blocks, cement, concrete, composite wood, certified new wood, housekeeping chemicals, false ceiling materials, flooring materials, furniture, gypsum based products, high reflective materials & coatings, etc., The list of GreenPro certified products can be accessed at* https://ciigreenpro.com/ • *Active Products include Electrical systems (Lighting Systems & Controls, Pumps & Motors, etc.,), Mechanical systems (unitary air conditioners, etc.,), Plumbing Fixtures (faucets, showers, etc.,)* • *The materials, products and equipment (e.g. high reflective materials, water fixtures, lighting fixtures, carpets, etc.,) certified by CII under Green Product Certification Programme (GreenPro) or any third party agency will be accepted to show credit compliance* • *The product/material/equipment certificate must be valid at the time of project certification.* **Exemplary Performance:** This credit is not eligible for exemplary performance.

<table>
<tr>
<td>86</td>
<td>Organic Waste Management</td>
<td>MRM CR 5

Compliance Option</td>
<td>
<u>Existing Text:</u>
<u>Compliance Option:</u>
Option 1- Aerobic Digestion 1-2 points
Install an on-site waste treatment system for handling organic (food and garden) waste generated in the campus and utilize the biogas/manure generated within the campus.

Points are awarded as below:

<table>
<tr><th>Organic Waste Treatment</th><th>Percentage of Organic Waste Treated</th><th>Points</th></tr>
<tr><td rowspan="2">Aerobic Digestion
(e.g.: Vermicomposting, Organic waste convertor etc)</td><td>≥ 50%</td><td>1</td></tr>
<tr><td>100%</td><td>2</td></tr>
</table>
<table>
<tr><th>Organic Waste Treatment</th><th>Percentage of Organic Waste Treated</th><th>Points</th></tr>
<tr><td rowspan="4">Anaerobic Digestion Waste to Energy
(e.g.: Biogas Plant)</td><td>≥25%</td><td>1</td></tr>
<tr><td>≥50%</td><td>2</td></tr>
<tr><td>≥75%</td><td>3</td></tr>
<tr><td>100%</td><td>4</td></tr>
</table>
<u>Notes</u>:
• For calculation, food waste can be considered as 0.1 kg per person or as prescribed by the local byelaw, for all campus occupants.
• For residential campuses, food waste shall be considered as 0.2 kg per person or as prescribed by the local byelaw (whichever is more stringent)
• Only maintained landscape areas shall be considered to calculate the total garden waste generated in the
</td>
</tr>
</table>

campus

- *Landscape waste can be considered as 0.2 kg per sq.m per day (i.e. 0.2 kg/ sq.m/ day).*
- *Aerobic digestion has only manure as byproduct, anaerobic digestion has both biogas and manure as byproducts.*

Exemplary Performance:

This credit is not eligible for exemplary performance

New Text:

Compliance Option:

Install an on-site waste treatment system for handling organic (food and garden) waste generated in the campus and utilize the biogas/manure generated within the campus.

Points are awarded as below:

Organic Waste Treatment	Percentage of Organic Waste Treated	Points
Aerobic Digestion (Eg: Vermicomposting, Organic Waste Convertor etc) / Anaerobic Digestion - Waste to Energy (Eg:Biogas Plant)	≥25%	1
	≥50%	2
	≥75%	3
	100%	4

***Notes*:**

- *For calculation, food waste can be considered as 0.1 kg per person or as prescribed by the local byelaw, for all campus occupants.*
- *For residential campuses, food waste shall be considered as 0.2 kg per person or as prescribed by the local byelaw (whichever is more stringent)*

			• *Only maintained landscape areas shall be considered to calculate the total garden waste generated in the campus* • *Landscape waste can be considered as 0.2 kg per sq.m per day (i.e. 0.2 kg/ sq.m/ day).* • *Aerobic digestion has only manure as byproduct, anaerobic digestion has both biogas and manure as byproducts.* • *The equipment efficiency of the aerobic digester must be <0.06kW/kg* • *kW/kg shall be calculated as the ratio of total connected electrical load of the organic waste treatment system to its rated processing capacity (kg/day)* • *The total connected load shall include all components such as shredding, mixing, aeration, heating, and auxiliary equipment associated with the system.* • *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.* **Exemplary Performance:** This credit is not eligible for exemplary performance
91	**Daylighting**	**HWB CR 2** **Compliance Option**	**Existing Text:** **Compliance Option:** **Option 1: Simulation Approach** Demonstrate through computer simulation that 50% of the regularly occupied spaces in each individual building achieves minimum daylight illuminance levels as per SP 41- Functional Requirements in Buildings, Part 4: Lighting, Table 1 in a clear sky condition on 21st September at 12 noon, at working plane. Areas with 2,200 Lux or more daylight illumination levels should not be considered. Points are awarded as below:

Percentage of Regularly Occupied Areas with Daylighting	Points (New Campus)	Points (Existing Campus)
≥ 50%	1	2
≥ 75%	2	3

(OR)

Option 2: Measurement Approach

Demonstrate through daylight illuminance measurement that at least 50% of the regularly occupied spaces in each individual building achieves daylight illuminance levels as per SP 41- Functional Requirements in Buildings, Part 4: Lighting, Table 1. Areas with 2,200 Lux or more daylight illumination levels should not be 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. The daylight measurement shall be taken using a lux meter.

Points are awarded as below:

Percentage of Regularly Occupied Areas with Daylighting	Points (New Campus)	Points (Existing Campus)
≥ 50%	1	2
≥ 75%	2	3

Notes:

- *Regularly occupied areas are those where people sit or stand as they work, irrespective of the number of days occupied in a year. Regularly occupied areas shall include only enclosed spaces.*
- *Regularly occupied areas include workstations, cabins, meeting rooms, etc.; whereas, areas with audio-visual facilities such as conference rooms, etc., can be excluded from this credit calculation, with justification and supporting documents.*
- *Non-regularly occupied areas include toilets, storerooms, etc.,*
- *Non enclosed spaces shall be considered as non-regularly occupied spaces.*
- *Regularly occupied areas which are used for multi-purposes, such as cafeteria-cum-meeting room, can be considered as separate spaces based on the function. The room boundary need not be a physical boundary.*
- *Projects with multiple buildings must independently meet the daylighting criteria for each building.*

Space Type	Recommended Illumination (lux)
Offices	
Entrance halls and reception areas	150
Conference rooms, executive offices	300
General offices	300
Schools and colleges	
Assembly halls	150
Class and lecture rooms	300
Art rooms	400

				Laboratories	300	
				Libraries	300	
				Offices	300	
				Staff rooms, common rooms	150	
				Hospitals		
				Reception and waiting rooms	150	
				Wards	110	
				Casualty and outpatient departments	150	
				Hotels		
				Entrance halls	150	
				Reception and accounts	300	
				Dining rooms	100	
				Lounges	150	
				Bedrooms	100	
				Homes		
				Kitchens	200	
				Bedrooms	100	

Reading (casual)	150

Reference: SP 41: Functional Requirements in Buildings

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if 95% of the regularly occupied area are meeting daylighting requirements as defined in the credit.

New Text:

Compliance Option:

Option 1: Simulation Approach

Demonstrate through computer simulation that 50% of the regularly occupied spaces in each individual building achieves minimum daylight illuminance levels as per SP 41- Functional Requirements in Buildings, Part 4: Lighting, Table 1 in a clear sky condition on 21st September at 12 noon, at working plane. Areas with 2,200 Lux or more daylight illumination levels should not be considered.

Points are awarded as below:

Percentage of Regularly Occupied Areas with Daylighting	Points
≥ 50%	1
≥ 75%	2

(OR)

Option 2: Measurement Approach

Demonstrate through daylight illuminance measurement that at least 50% of the regularly occupied spaces in each individual building achieves daylight illuminance levels as per SP 41- Functional Requirements in Buildings, Part 4: Lighting, Table 1. Areas with 2,200 Lux or more daylight illumination levels should not be 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. The daylight measurement shall be taken using a lux meter.

Points are awarded as below:

Percentage of Regularly Occupied Areas with Daylighting	**Points**
≥ 50%	1
≥ 75%	2

Notes:

- *Regularly occupied areas are those where people sit or stand as they work, irrespective of the number of days occupied in a year. Regularly occupied areas shall include only enclosed spaces.*
- *Regularly occupied areas include workstations, cabins, meeting rooms, etc.; whereas, areas with audio-visual facilities such as conference rooms, etc., can be excluded from this credit calculation, with justification and supporting documents.*
- *Non-regularly occupied areas include toilets, storerooms, etc.,*
- *Non enclosed spaces shall be considered as non-regularly occupied spaces.*
- *Regularly occupied areas which are used for multi-purposes, such as cafeteria-cum-meeting room, can be considered as separate spaces based on the function. The room boundary need not be a physical boundary.*
- *Projects with multiple buildings must independently meet the daylighting criteria for each building.*

Space Type	Recommended Illumination (lux)
Offices	
Entrance halls and reception areas	150
Conference rooms, executive offices	300
General offices	300
Schools and colleges	
Assembly halls	150
Class and lecture rooms	300
Art rooms	400
Laboratories	300
Libraries	300
Offices	300
Staff rooms, common rooms	150
Hospitals	
Reception and waiting rooms	150

Wards	110
Casualty and outpatient departments	150
Hotels	
Entrance halls	150
Reception and accounts	300
Dining rooms	100
Lounges	150
Bedrooms	100
Homes	
Kitchens	200
Bedrooms	100
Reading (casual)	150

Reference: SP 41: Functional Requirements in Buildings

Exemplary Performance:

The project is eligible for exemplary performance under ID Credit 1 - Innovation in Design Process, if 95% of the regularly occupied area are meeting daylighting requirements as defined in the credit.

<table>
<tr>
<td>96</td>
<td>Low VOC Materials

(Applicable only for New Campuses)</td>
<td>HWB CR 3

Credit Points</td>
<td>
<u>Existing Text:</u>
<u>Compliance Option:</u>

Demonstrate that the project complies with the following categories:

❖ Paints & Coatings 1 Point

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.

<table>
<tr><th>Type of Paints & Coatings</th><th>VOC Limit (g/L less water)</th></tr>
<tr><td>Non-flat (Glossy)</td><td>150</td></tr>
<tr><td>Flat (Mat)</td><td>50</td></tr>
<tr><td>Metallic/ Anti-corrosive/ Anti-rust</td><td>250</td></tr>
<tr><td>Clear Wood Finish: Varnish</td><td>350</td></tr>
<tr><td>Clear Wood Finish: Lacquer</td><td>550</td></tr>
<tr><td>Floor Coatings</td><td>100</td></tr>
</table>
(AND/OR)
</td>
</tr>
</table>

❖ **Adhesives & Sealants** **1 Point**

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 vaporise at normal room temperatures.*
- *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.

- *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.*

Exemplary Performance:

This credit is not eligible for exemplary performance.

New Text:
Compliance Option:

Demonstrate that the project complies with the following categories:

❖ **Paints & Coatings** **1 Point**

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)
Non-flat (Glossy)	150
Flat (Mat)	50
Metallic/ Anti-corrosive/ Anti-rust	250
Clear Wood Finish: Varnish	350

Clear Wood Finish: Lacquer	550
Floor Coatings	100

(OR)

❖ **Adhesives & Sealants** **1 Point**

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 vaporise at normal room temperatures.* • *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.* • *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.* **Exemplary Performance:** This credit is not eligible for exemplary performance.
103	**Occupational Health and Safety**	**HWB CR 6** **New Credit**	**Intent:** Promote occupational health and safety through structured systems and continuous indoor air quality monitoring. **Compliance Options:** **Option 1: OHS Management System** **1 point** Implement a comprehensive Occupational Health & Safety (OHS) Management System that is certified by an accredited third-party, demonstrating a structured approach towards identifying, managing, and continuously improving workplace health and safety performance. **(OR)** **Option 2: IAQ Monitoring System** **1 point** Demonstrate compliance by having an IAQ monitoring system to continuously track PM2.5, PM10, TVOC, and CO_2 in densely occupied spaces and demonstrate that the maximum concentration levels of contaminants are as per the table below:

Parameter	Threshold Value
CO_2	530 ppm
PM 2.5	< 25 µg/m³
PM 10	< 100 µg/m³
TVOC	< 800 µg/m³

Documentation Required:

Precertification

Option 1: OHS Management System

i. OHS policy approved by the management.
ii. Declaration confirming to implement OHS Management system and get third party certification.

Option 2: IAQ Monitoring System

i. Narrative describing the proposed IAQ monitoring system.
ii. Schematic layout highlighting tentative sensor locations in densely occupied spaces.
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.

			Certification **Option 1: OHS Management System** i. Narrative describing the OHS Management System and the details pertaining to the same. ii. OHS policy approved by the management. iii. Valid OHS certificate issued by an accredited third-party. **Option 2: IAQ Monitoring System** i. Narrative describing the details of the IAQ monitoring system Layout plan highlighting sensor installation locations in densely occupied areas. ii. Air quality monitoring report highlighting air quality: PM 2.5, PM 10, CO2 etc. iii. Manufacturer cutsheet of air quality monitoring systems used in the project. iv. Photographs of the display boards for creating awareness amongst occupants about the air quality. v. Purchase invoice and photographs of the locations and air quality monitoring systems used in the project.
105	**Occupant Satisfaction Survey**	**HWB CR 7** **New Credit**	**Intent:** To evaluate and enhance occupant satisfaction through periodic feedback on key comfort parameters, improving occupant well-being. **Compliance Option:** Conduct an annual occupant satisfaction survey addressing Thermal Comfort, Acoustic Comfort, Cleanliness and Hygiene, Pedestrian Comfort, and Green Spaces & Landscape Quality, and demonstrate a minimum of 80% overall satisfaction is achieved for the identified parameters. **Sample Survey Questions:**

1. Please rate your satisfaction with temperature conditions during your working hours

Unsatisfactory	1	2	3	4	5	Satisfactory

1. Please rate your satisfaction with overall noise during your working hours

Unsatisfactory	1	2	3	4	5	Satisfactory

2. Please rate your satisfaction with the cleanliness and hygiene aspects in the campus

Unsatisfactory	1	2	3	4	5	Satisfactory

3. Please rate your satisfaction with the pedestrian access in the campus

Unsatisfactory	1	2	3	4	5	Satisfactory

4. Please rate your satisfaction with the provided Green Spaces and Landscape quality in the campus

Unsatisfactory	1	2	3	4	5	Satisfactory

Documentation Required:

Certification

i. Narrative describing the methodology for conducting the survey and assessing occupant satisfaction levels.

ii. Copy of the occupant comfort survey questionnaire Thermal Comfort, Acoustic Comfort, Cleanliness and Hygiene, Pedestrian Comfort, and Green Spaces & Landscape Quality parameters.

iii. Survey responses or summary of results indicating the percentage of occupant satisfaction for each parameter.

108	**Green Education**	**SOM CR2** **Compliance Option, Documentation required and credit points**	**Existing Text:** **Compliance Option:** Sensitise occupants about sustainability education through capacity building/training, outreach activities and constitute green education committees/eco clubs involving volunteers from diversified fields to set /achieve sustainability goals. ❖ Organise atleast three outreach/ educational programmes in a year with the involvement of campus occupants, local communities & NGOs, to increase public awareness on environment sustainability and green features of the campus. The outreach/ educational programmes can include, but not limited to, promotional materials (posters, brochures, etc.,), information portals, and awareness programmes. ❖ Constitute a formal committee/ forum with the involvement of campus occupants, local communities & NGOs, to identify and implement atleast two eco-friendly practices/ green initiatives within and outside the campus. The eco-friendly practices/ green initiatives can include, but not limited to, clean & green campaigns on waste segregation & recycling, water conservation, energy conservation, use of public transportation/ bicycles/ carpooling, world green building week, earth hour. ❖ Institute awards to acknowledge the efforts of campus occupants, local communities, NGOs for implementing eco-friendly practices/ green initiatives. ❖ Develop & publish project specific green campus operation & maintenance guidelines providing information that helps campus occupants to implement and utilise the green features, post occupancy. ❖ Develop project specific green building renovation guidelines providing information that helps facilities team to implement green features, during the building renovation process. **Exemplary Performance:** This credit is not eligible for exemplary performance.

			New Text: **2 points** **Compliance Option:** Sensitise occupants about sustainability education through capacity building/training, outreach activities and constitute green education committees/eco clubs involving volunteers from diversified fields to set /achieve sustainability goals. ❖ **Option 1 : Green Awareness** **(1 point)** • Public awareness on environment sustainability. Eg:Plantation drives, Clean up drives, Sustainablilty marathons etc., • Provide signage highlighting green measures implemented in the campus to protect environment. **(AND/OR)** ❖ **Option 2 : Green Campus Guidelines** **(1 point)** • Develop Green campus guidelines providing information that helps campus occupants to implement and utilise the green features. • Develop Green campus operation & maintenance and renovation guidelines providing information that helps facilities team to implement the green features during operation and renovation process. **Exemplary Performance:** This credit is not eligible for exemplary performance. **Documentation Required:** ***Precertification*** **Option 1: Green Awareness** i. Narrative describing the Proposed outreach/ educational programmes that will be organized to increase public awareness on environment sustainability and green features of the campus.

			Option 2: Green Campus Guidelines i. Draft/ Final copy of the green campus guidelines providing information which helps the campus occupants to implement and utilise the green features, post occupancy ii. Draft/ Final copy of green campus renovation guidelines providing information which helps the facilities team to implement the green features, during campus renovation process ***<u>Certification</u>*** **Option 1: Green Awareness** i. Narrative describing the outreach/ educational programmes that will be organized to increase public awareness on environment sustainability and green features of the campus. ii. Photographs of the signage installed in the campus, highlighting green measures implemented in the campus to protect environment. **Option 2: Green Campus Guidelines** i. Narrative describing the green campus guidelines with the green features implemented in the campus ii. Copy of the green campus guidelines providing information which helps the campus occupants to implement and utilise the green features, post occupancy iii. Copy of green campus renovation guidelines providing information which helps the facilities team to implement the green features, during campus renovation process. iv. Photographs indicating the sustainable strategies implemented during the renovation.
110	**Smart Campus Operations**	**SOM CR3** **New Credit**	**<u>Intent:</u>** To enable centralized monitoring and control of key campus systems, improving operational efficiency and enhancing sustainability performance.

			Compliance Option: **Option 1: Centralized Operations & Control** **(2 points)** Campus-wide monitoring and control of following systems (1point for two systems): • Air-conditioning management system • Lighting management system • Renewable energy management system • Elevator management system • Fresh air monitoring system • CO2 control and monitoring system • Domestic water pumping management system • Wastewater treatment monitoring and control system **(AND/OR)** **Option 2:Performance Monitoring** **Energy Dashboard:** **1 Point** Demonstrate online energy monitoring system through dashboard to visualize daily/ monthly performance. Recorded data shall also be analyzed (shall be submitted to IGBC for feedback) for further improvements. **(AND/OR)** **Water Dashboard** **1 Point** Demonstrate online water monitoring system to track continuous water performance on daily or monthly basis (project shall share water performance data with IGBC for feedback) for further improvements.

			Documentation Required: ***Precertification*** **Option 1: Centralized Operations & Control** i. Narrative describing the centralized operations and control systems proposed in the project, to control and monitor equipment and systems. ii. Declaration letter from the project owner/ developer stating the various systems that the project will monitor and control through Central System. **Option 2: Performance Monitoring:** **Energy Dashboard** i. Narrative describing the energy monitoring dashboard proposed in the project. ii. Declaration letter from the project owner/ developer confirming the provision of energy dashboard for monitoring along with commitment to share the annual total building energy consumption data to IGBC. **Water Dashboard** i. Manufacturer cut-sheets/ specifications of the real time water monitoring system proposed in the project iii. Declaration letter confirming the provision of water dashboard for monitoring along with commitment to share the annual total building energy consumption data to IGBC. ***Certification*** **Option 1: Centralized Operations & Control** i. Narrative describing the centralized operations and control systems installed in the project, to

			control and monitor equipment and systems. ii. I/O summary of the centralized operations control systems installed. iii. Photographs showing the systems being monitored through the centralized operations control systems. iv. Purchase invoice of the installed Control system **Option 2: Performance Monitoring:** **Energy Dashboard** i. Narrative describing the energy dashboard installed in the project. ii. Energy use data for twelve consecutive months (one full year) for the various end uses sub metered in the campus (not applicable for new campus) iii. Manufacturer cut-sheets/ brochures of the installed energy dashboard. iv. Photographs of the energy dashboard. **Water Dashboard** i. Narrative describing the water dashboard installed in the project. ii. Water use data for twelve consecutive months (one full year) for the various end uses sub metered in the campus (not applicable for new campus) iii. Manufacturer cut-sheets/ brochures of the installed water dashboard. iv. Photographs of the installed water dashboard

113, 114 &115	**Innovation in Design Process**	**ID Credit 1** **Compliance Options**	**<u>Existing Text:</u>** **<u>Compliance Option:</u>** ❖ **ID Credit 1.1: Innovation in Design Process** ➢ **Option 1: Innovation** Identify the intent of innovation credit, requirement for compliance, approach used to meet the required measures, and documentation to demonstrate compliance. ***<u>Notes</u>*:** *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 Campus rating system. ***<u>Notes</u>*:** • 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 Campus rating system are defined in respective credits and Exhibit - A.

❖ **ID Credit 1.2: Innovation in Design Process**
Same as credit 1.1

❖ **ID Credit 1.3: Innovation in Design Process**
Same as credit 1.1

❖ **ID Credit 1.4: Innovation in Design Process**
Same as credit 1.1

Exhibit A - List of Base Credits eligible for Exemplary Performance

Site Planning and Management	
SPM Credit 1	Enhanced Green Features in the Campus Building ➢ Energy Efficiency: New Campus- EPI ratio- < 0.71 Existing Campus, as per the table below: **Percentage conditioned area** / **EPI Range** Less than 25% / < 28 25% - 50% / < 38 50%-75% / < 56 Above 75% / < 74 95% and above / < 88 ➢ Water Efficiency: > 40% of potable water savings
SPM Credit 3	Site Preservation ➢ ≥ 40% of the site area is preserved

				SPM Credit 4	Green Cover ➢ ≥ 45% of the site area is with green cover/ vegetation
				SPM Credit 5	Heat Island Reduction, Roof & Non-roof ➢ ≥ 100% Non-Roof and Roof Area with mitigation measures
				Sustainable Transportation	
				ST Credit 3	Access to Sustainable Transportation ➢ 15% of the total four-wheeler and two-wheeler parking capacity provided with EVCI.
				Water Conservation	
				WC Credit 1	Enhanced Rainwater Harvesting ➢ as defined in credit
				WC Credit 2	Sustainable Landscape ➢ ≥ 80% Drought tolerant species
				Energy Efficiency	
				EE Credit 2	Enhanced Energy Efficiency ➢ ≥ 60% reduction in LPD ➢ Total exterior lighting load of the campus is reduced by 25% through retrofitting
				EE Credit 3	Green Power On Site Renewable Energy ➢ ≥ 25% of annual energy consumption met by on-site RE Renewable Energy Use (Combined) ➢ ≥ 90% of grid energy is combined
				Material and Resource Management	

			v.	MRM Credit 1	Sustainable Building Materials ➢ ≥ 40% of building materials are sourced locally ➢ ≥ 30% of recycled content in the building materials procured ➢ ≥15% reduction in embodied carbon of the campus
				MRM Credit 4	Dry Waste Management, Post-occupancy ➢ 95% of the dry waste generated in campus is diverted from landfill
				Health & Well-Being	
				HWB Credit 1	Daylighting ➢ 95% of regularly occupied area meet the daylighting requirement as defined in the credit.
			New Text: **Compliance Options:** ❖ **ID Credit 1.1: Innovation in Design Process** ➢ **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 Campus 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 Campus rating system are defined in respective credits and Exhibit - A. ❖ **ID Credit 1.2: Innovation in Design Process** Same as credit 1.1 ❖ **ID Credit 1.3: Innovation in Design Process** Same as credit 1.1 ❖ **ID Credit 1.4: Innovation in Design Process** Same as credit 1.1

Exhibit A - List of Base Credits eligible for Exemplary Performance

Site Planning and Management	
SPM Credit 1	Enhanced Green Features in the Campus Building ➢ Energy Efficiency: EPI ratio- < 0.71 (or) EPI for Existing Campus, as per the table below: **Percentage conditioned area** / **EPI Range** Less than 25% / < 28 25% - 50% / < 38 50%-75% / < 56 Above 75% / < 74 95% and above / < 88 ➢ Water Efficiency / Water Use Intensity > 40% of savings over baseline
SPM Credit 3	Ecology & Biodiversity Conservation ➢ ≥ 40% of the site area is preserved ➢ Shannon-Wiener Diversity Index (H') >2.5
SPM Credit 4	Green Cover ➢ ≥ 45% of the site area is with green cover/ vegetation

					➢ 45 trees per acre
				SPM Credit 5	Heat Island Reduction, Roof & Non-roof ➢ ≥ 100% Non-Roof and Roof Area with mitigation measures
				Sustainable Transportation	
				ST Credit 3	Access to Sustainable Transportation ➢ 7% of the total four-wheeler and two-wheeler parking capacity provided with EVCI.
				Water Conservation	
				WC Credit 1	Enhanced Rainwater Harvesting ➢ as defined in credit
				WC Credit 2	Sustainable Landscape ➢ ≥ 80% Drought tolerant species
				Energy Efficiency	
				EE Credit 2	Enhanced Energy Efficiency ➢ ≥ 60% reduction in LPD ➢ Total exterior lighting load of the campus is reduced by 30% through retrofitting
				EE Credit 3	Green Power On Site Renewable Energy ➢ Owner Occupied: >25% of annual energy consumption met by onsite ➢ Tenant Occupied: >10% of annual energy consumption met by RE Renewable Energy Use (Combined)

<table>
<tr><td></td><td></td><td></td><td></td><td>
<table>
<tr><td></td><td>➢ Owner Occupied: 100% of grid energy is combined
➢ Tenant Occupied: >55% of grid energy is combined</td></tr>
<tr><td colspan="2">Material and Resource Management</td></tr>
<tr><td>MRM Credit 1</td><td>Sustainable Building Materials
➢ ≥ 40% of building materials are sourced locally
➢ ≥ 30% of recycled content in the building materials procured
➢ ≥15% reduction in embodied carbon of the campus</td></tr>
<tr><td>MRM Credit 4</td><td>Dry Waste Management, Post-occupancy
➢ 95% of the dry waste generated in campus is diverted from landfill</td></tr>
<tr><td colspan="2">Health & Well-Being</td></tr>
<tr><td>HWB Credit 1</td><td>Daylighting
➢ 95% of regularly occupied area meet the daylighting requirement as defined in the credit.</td></tr>
</table>
</td></tr>
<tr><td>117</td><td>GHG Inventorization & Mitigation measures</td><td>ID Credit 2

Compliance Option & Documentation required</td><td colspan="2"><u>Existing Text:</u>
<u>Compliance Options:</u>
Option-1: GHG Accounting and Inventory: 1 Point
Account GHG emissions within the operational boundary of the Campus pertaining to Direct (Scope-1) and Indirect (Scope-2 & Scope-3) emissions in consistence with one of the following ISO standards, as applicable:
• ISO 14064-1: 2018: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
• ISO 14064-2:2019: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements</td></tr>
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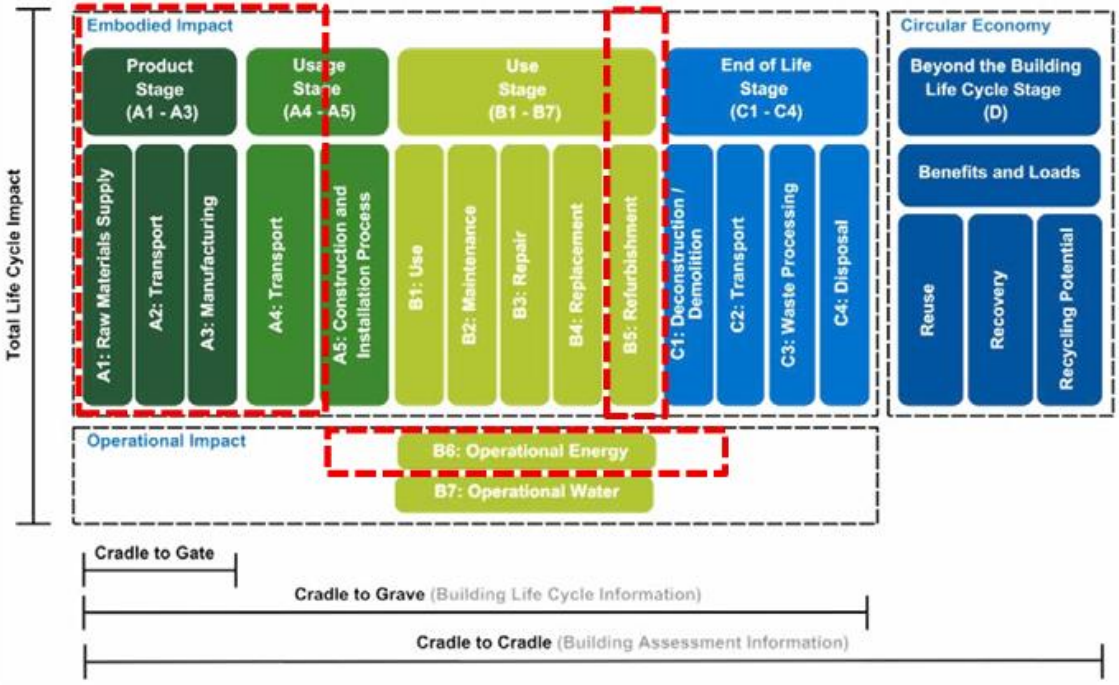
			(AND/OR) **Option-2: GHG Mitigation: 1 Point** **<u>New Campus</u>** ❖ Action plan on GHG mitigation measures clearly indicating timeline, short (3-5 years) & long-term targets (5-10 years) to offset carbon emissions equivalent to carbon credit (1 metric ton of CO2 is equal to 1 carbon credit) **(AND)** Provide a detailed action plan with strategies to reduce the carbon footprint from Scope-1, Scope-2 & Scope-3 emissions by 5% from the preceding year in-lieu of various mitigation measures, over the next one year (calendar year). 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. **<u>Existing Campus</u>** ❖ Action plan on GHG mitigation measures clearly indicating timeline, short (3-5 years) & long-term targets (5-10 years) to offset carbon emissions equivalent to carbon credit (1 metric ton of CO2 is equal to 1 carbon credit) **(AND)** ❖ 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 by atleast 5% from the preceding year in-lieu of various mitigation measures taken over the year.

			Documentation Required: ***Precertification*** **Option 1: GHG Accounting and Inventory:** i. Estimated GHG Accounting report with the following information - boundary assumptions, type of control, type of GHGs, GHG emission statement (including Scope 1, 2 & 3). ii. Declaration letter along with Commitment to share the third party GHG report upon one year of operations. **Option 2: GHG Mitigation:** i. Organization policy on GHG accounting & inventory and mitigation measures with clearly specified short-& long-term targets. ***Certification*** **New Campus** **Option 1: GHG Accounting and Inventory:** i. Estimated GHG Accounting report with the following information - boundary assumptions, type of control, type of GHGs, GHG emission statement (including Scope 1, 2 & 3). ii. Declaration letter along with Commitment to share the third party GHG report upon one year of operations. iii. Work Order/Agreement for the third party GHG Accounting. **Option 2: GHG Mitigation:** i. Organisation policy on GHG accounting & inventory and mitigation measures with clearly specified short-& long-term targets. ii. Action Plan for mitigation measures signed by Corporate Sustainability Head indicating the reduction in emission intensity for a period of one year from the defined baseline year vis-à-vis various

			mitigation actions. **Existing Campus** **Option 1: GHG Accounting and Inventory:** 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), period covered by GHG emissions verification, accounting criteria against which verification standard/ code conducted, verification & validation reference Standard, GHG verification methodology and statement of independence, impartiality & competence. **Option 2: Mitigation Measures:** i. Organization policy on GHG accounting & inventory and mitigation measures with clearly specified short-& long-term targets. ii. Mitigation measures report indicating the reduction in emission intensity for a period of one year from the defined baseline year vis-à-vis various mitigation actions. **New Text:** **Compliance Options:** **Decarbonization at Project Level- LCA & roadmap to Net Zero** **2 Points** 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 CO2e per square meter of Built up area (kg CO2e/m2 BUA) ➢ Operational carbon in kg CO2e 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* • *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 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.* 

			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. **Existing Campus:** **Decarbonization at Organization Level** **2 Points** 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.* • **Scope 3 emissions is optional.*

			Documentation Required: ***<u>Precertification</u>*** Decarbonization at Project Level- LCA & roadmap to Net Zero 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_2e/m² BUA). v. Details of software tool used for LCA with reference to data sources. v. Decarbonisation roadmap outlining targets, key strategies, and intended interventions (renewable energy, efficiency, materials, etc.). ***<u>Certification</u>*** **<u>New Campus</u>** Decarbonization at Project Level- LCA & roadmap to Net Zero: 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_2e/m²) and annual operational GHG (kg CO_2e/year). iv. Details of software tool used for LCA with reference to data sources v. Copy of decarbonization roadmap highlighting targeted reduction measures, timelines, and implementation plan.

			Existing Campus **Decarbonization at Organizational 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. Decarbonization roadmap with clear strategies, action plan, and monitoring framework.
120	**Beyond the fence Green Initiatives**	**ID CR3** **New Credit**	**Intent:** To encourage projects to undertake green initiatives outside the campus, benefiting the local community and environment **Compliance Option:** Demonstrate the implementation of atleast two green measures beyond the campus boundary such as: • Green Plantation drives/biodiversity parks • Development of pedestrian pathways/ improve public spaces • Potable water supply for local community • Restoration of water bodies • Rainwater Harvesting Systems for local areas • Installation of public composting units / biogas plants • Preservation of local floral and faunal species Eg. Restoring of water bodies for aquatic species, Protection of mangroves, adaptable habitat for endangered species etc, **Documentation Required:** i. Narrative describing the beyond the fence green initiatives implemented by the project team. ii. Photographs of the beyond the fence green initiatives implemented by the project team in the last 3 years.

121	**Social Wellbeing and Community Practices**	**ID CR4** **New Credit**	**Intent:** To promote social well-being and community engagement within the campus through structured initiatives that contribute to the health, inclusivity, and welfare of occupants and the surrounding community. **Compliance Options:** Organize at least two social wellbeing programs in the campus such as: • Blood donation camps • Heath check up camps • Mental health awareness sessions / counselling camps • Food/clothes donation drives • Support orphanages / old age homes • Educational support and engagement programs for economically weaker sections (EWS) • Animal rescue / adoption drives • Feeding programs for stray animals etc **Documentation Required:** i. Narrative describing the Social wellbeing and Community practices being implemented by the campus. ii. Photographs of Social wellbeing and Community practices implemented by the campus in the last 3 years.