



**GBI ASSESSMENT CRITERIA**  
FOR  
NRNC : DATA CENTRE

VERSION 2.0 | JULY 2025

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## INTRODUCTION

### WHAT IS THE GREEN BUILDING INDEX (GBI)?

The Green Building Index is an environmental rating system for buildings developed by Greenbuildingindex Sdn Bhd (GSB). The Green Building Index is Malaysia's first comprehensive rating system for evaluating the environmental design and performance of Malaysian buildings based on the six (6) main criteria of Energy Efficiency, Indoor Environment Quality, Sustainable Site Planning & Management, Materials & Resources, Water Efficiency, and Innovation.

The Green Building Index is fundamentally derived from existing rating tools, including the Singapore Green Mark and the Australian Green Star system, but extensively modified for relevance to the Malaysian tropical weather, environmental context, cultural and social needs.

This GSB's GBI initiative aims to assist the building industry in its march towards sustainable development. The GBI environmental rating system is created to:

- **Define green building by establishing a common language and standard of measurement;**
- **Promote integrated, whole-building design;**
- **Recognize and reward environmental leadership;**
- **Transform the built environment to reduce the environmental impact of development; and**
- **Ensure new buildings remain relevant in the future and existing buildings are refurbished properly to remain relevant.**

### WHO CAN USE THE GREEN BUILDING INDEX?

GSB encourages all members of Project Teams, Building Owners, Developers and other interested parties (including Contractors, Government, and Design and Build Contractors) to use the Green Building Index to validate environmental initiatives at the design phase of new construction or base building refurbishment; or construction and procurement phase of buildings. Use of the Green Building Index is encouraged on all such projects to assess and improve their environmental attributes.

Use of the Green Building Index tool without formal certification by an independent accredited GBI Certifier does not entitle the user or any other party to promote the Green Building Index rating achieved. No fee is payable to GSB for such use, however formal recognition of the Green Building Index rating - and the right to promote same - requires undertaking the formal certification process offered by Greenbuildingindex Sdn Bhd.

*All Green Building Index rating tools are reviewed periodically; please forward any feedback to [info@greenbuildingindex.org](mailto:info@greenbuildingindex.org).*

# PROJECT INFORMATION

<b>PROJECT NAME</b>		
<b>PROJECT REGISTRATION NO.</b>		
<b>PROJECT ADDRESS</b>		
	<small>POSTCODE</small>	<small>STATE</small>
<b>CONSTRUCTION TYPE</b>		
<b>TOTAL GROSS FLOOR AREA (GFA)</b>		
<b>LAND AREA (FOR LANDED PROPERTY)</b>		
<b>REGISTRATION FEE (EXCLUDING GST)</b>		
<b>TARGETTED RATING</b>		
<b>TOTAL POINTS CLAIM</b>		
<b>EXPECTED CONSTRUCTION DATE</b>	<small>COMMENCED</small>	<small>COMPLETION</small>
<b>DATE BUILDING COMPLETED (NREB/IEB ONLY)</b>		
<b>PROJECT DESCRIPTION &amp; MAJOR DESIGN FEATURES</b>		

## CONSULTANTS INFORMATION

<b>OWNER'S NAME</b>		
<b>COMPANY</b>		
<b>OWNER'S REPRESENTATIVE</b>	NAME	DESIGNATION

<b>ARCHITECT</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>CIVIL ENGINEER</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>STRUCTURAL ENGINEER</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>MECHANICAL ENGINEER</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>ELECTRICAL ENGINEER</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>QUANTITY SURVEYOR</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>LAND SURVEYOR</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>LANDSCAPE ARCHITECT</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>COMMISSIONING SPECIALIST (CxS)</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>GBI FACILITATOR</b>	NAME	PROFESSIONAL REG. NO	COMPANY
<b>OTHER SPECIALIST CONSULTANT(S)</b>			
<b>MAIN CONTRACTOR</b>			
<b>LOCAL AUTHORITY</b>			

## ASSESSMENT CRITERIA MAXIMUM ACHIEVABLE POINTS

PART	ITEM	MAXIMUM POINTS	SCORE
1	Energy Efficiency (EE)	38	
2	Indoor Environmental Quality (EQ)	8	
3	Sustainable Site Planning & Management (SM)	9	
4	Material & Resources (MR)	19	
5	Water Efficiency (WE)	19	
6	Innovation (IN)	7	
TOTAL SCORE		100	

## GREEN BUILDING INDEX CLASSIFICATION

POINTS	GBI RATING
86+ points	Platinum
76 to 85 points	Gold
66 to 75 points	Silver
50 to 65 points	Certified

# DETAIL ASSESSMENT CRITERIA

## SUMMARY OF CONTENTS

PART	CRITERIA	ITEM	POINTS	TOTAL
1	<b>EE</b>	<b>ENERGY EFFICIENCY</b>		
	EE1	Minimum EE Performance (OTTV & RTTV)	1	38
	EE2	Power Usage Effectiveness (PUE)	24	
	EE3	Carbon Offset	5	
	EE4	On-Site Renewable Energy (RE)	5	
	EE5	Enhanced Commissioning	3	
2	<b>EQ</b>	<b>INDOOR ENVIRONMENTAL QUALITY</b>		
	EQ1	Minimum Outdoor Air and Environmental Tobacco Smoke Control	1	8
	EQ2	Air Monitoring and Display	2	
	EQ3	Infectious Aerosol Risk Management	1	
	EQ4	Indoor Air Pollutant and Mould Control	1	
	EQ5	Access to Daylight and View	1	
	EQ6	Biophilic Environment	1	
EQ7	Thermal Comfort/ Electrical Lighting Level Comfort/ Internal Noise Level	1		
3	<b>SM</b>	<b>SUSTAINABLE SITE PLANNING &amp; MANAGEMENT</b>		
	SM1	Site Selection	1	9
	SM2	Brownfield Redevelopment	1	
	SM3	Sustainable Commuting	2	
	SM4	Environmental Management	1	
	SM5	Pocket Forest	1	
	SM6	Sustainable Construction	2	
SM7	Greenery & Roof	1		
4	<b>MR</b>	<b>MATERIALS &amp; RESOURCES</b>		
	MR1	Embodied Carbon Declaration and Reduction	6	19
	MR2	Circularity	4	
	MR3	Regional Materials and Sustainable Timber	1	
	MR4	Storage and Collection of Recyclables	1	
	MR5	E-Waste Management	1	
	MR6	Construction Waste Management	2	
	MR7	Refrigerants & Clean Agents	1	
	MR8	Industrialised Building System (IBS)	1	
	MR9	Sustainable Uninterrupted Power Supply (UPS)	1	
MR10	Sustainable Fuel for Backup Generators	1		
5	<b>WE</b>	<b>WATER EFFICIENCY</b>		
	WE1	Water Usage Effectiveness (WUE)	12	19
	WE2	Drought Contingency Plan	3	
	WE3	Water Efficient Fitting/ Irrigation/ Metering/ Leak Detection	2	
	WE4	Rainwater Harvesting	1	
WE5	Water Recycling	1		
6	<b>IN</b>	<b>INNOVATION</b>		
	IN1	Innovations	6	7
IN2	Green Building Index Facilitator (GBIF)	1		
<b>TOTAL POINTS</b>				<b>100</b>

**1 ENERGY EFFICIENCY (EE)**  
**38 POINTS**

ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
EE1	<b>MINIMUM EE PERFORMANCE (OTTV &amp; RTTV)</b>			
	<p>Establish minimum energy efficiency (EE) performance to reduce energy consumption in buildings, thus reducing CO2 emission to the atmosphere. Meet the following minimum EE requirements as stipulated in MS1525:2019:</p> <p>1) OTTV ≤ 50, RTTV ≤ 25. Submit calculations using the BEIT software or other GBI approved software(s),</p> <p><b>AND</b></p> <p>2) Provision of Energy Management Control system where Air-conditioned space ≥ 4000 m²</p>		<b>1</b>	
EE2	<b>POWER USAGE EFFECTIVENESS (PUE)</b>			
	PUE ≤ 1.60	1	<b>24</b>	
	PUE ≤ 1.56	3		
	PUE ≤ 1.50	6		
	PUE ≤ 1.46	8		
	PUE ≤ 1.42	10		
	PUE ≤ 1.40	11		
	PUE ≤ 1.38	12		
	PUE ≤ 1.37	13		
	PUE ≤ 1.36	14		
	PUE ≤ 1.35	15		
	PUE ≤ 1.34	16		
	PUE ≤ 1.33	17		
	PUE ≤ 1.32	18		
	PUE ≤ 1.31	19		
	PUE ≤ 1.30	20		
	PUE ≤ 1.29	21		
	PUE ≤ 1.28	22		
	PUE ≤ 1.27	23		
	PUE ≤ 1.26	24		
	<p>Design Assessment PUE shall be submitted for IT load of 25%, 50%, 75%, and 100%. PUE at DA stage shall be determined based on the projected IT load during the 1st year of operation.</p> <p>Final CVA is based on Actual Operational PUE over the last 12 months (kWh/kWh).</p> <p>For verification of PUE during operation:</p> <p>a) Provision of adequate energy submetering for cooling, lighting, IT equipment, backup power system, etc.</p> <p>b) PUE verification to be conducted by a qualified person.</p> <p>c) Sensor accuracy to comply with latest GBI requirements.</p> <p>d) PUE verification from the BMS/EMS to be provided on:</p> <ul style="list-style-type: none"> <li>• Energy Distribution in the Data Centre.</li> <li>• IT Equipment Power and Energy Use.</li> <li>• Lighting Power and Energy Use.</li> <li>• Cooling System Power and Energy Distribution.</li> <li>• Cooling System Efficiency (operational System COP or kw/ton).</li> <li>• Equipment Operational Schedules.</li> <li>• Methodology and Assumption (if any) for PUE Calculation.</li> <li>• Verification of BMS/EMS submetering against actual energy bill.</li> <li>• A Manual Listing of Unmetered Miscellaneous Power and Estimated Energy Use.</li> </ul>			

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ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
<b>EE3</b>	<b>CARBON OFFSET</b>			
	Renewal Energy Factor (REF) or Carbon Emission Reduction (CEr)		<b>5</b>	
	REF or CEr ≥ 25%	1		
	REF or CEr ≥ 50%	3		
	REF or CEr ≥ 90%	5		
	Minimum contractual period is 3 years. Shorter period to be prorated			
<b>EE4</b>	<b>ON-SITE RENEWABLE ENERGY (RE)</b>			
	(kWh/year per m <sup>2</sup> of building footprint)		<b>5</b>	
	≥ 3.6	1		
	≥ 7.2	2		
	≥ 10.8	3		
	≥ 14.4	4		
	≥ 18.0	5		
<b>EE5</b>	<b>ENHANCED COMMISSIONING</b>			
	<p>Appointment of a Commissioning Specialist (CxS) to conduct initial review, monitor construction, and verify with post- occupancy commissioning of installed equipment to meet the intent and goal of Energy Efficiency, Water Efficiency, and Indoor Environmental Quality.</p> <p>The CxS shall also ensure and document that the facility management team is properly trained and handover with all energy and sustainability related equipment operational and maintenance standard procedures.</p> <p>A successful deployment of CxS will maximise the opportunity for the lowest PUE and WUE for the maximum benefit of the data centre.</p>	3	<b>3</b>	
<b>ENERGY EFFICIENCY (EE) TOTAL</b>			<b>38</b>	

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**INDOOR ENVIRONMENTAL QUALITY (EQ)****8 POINTS**

ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
EQ1	<b>MINIMUM OUTDOOR AIR AND ENVIRONMENTAL TOBACCO SMOKE CONTROL</b>			
	ASHRAE Standard 62.1 - Ventilation and Indoor Air Quality - minimum outdoor air supply. <b>AND</b> No Smoking Permitted Indoor with Outdoor Smoking Zone Located Away from Openings.	1	1	
EQ2	<b>AIR MONITORING AND DISPLAY</b>			
	Permanent monitoring and display of indoor Air Temperature, Relative Humidity and Carbon Dioxide to all regularly occupied spaces.	1	2	
	Additional monitoring and display of a minimum of 2 additional indoor air parameters .	1		
	Air Temperature, Relative Humidity, CO2, PM 2.5, VOC, Ozone, CO, NO2, SO2 .			
EQ3	<b>INFECTIOUS AEROSOL RISK MANAGEMENT</b>			
	Permanently occupied spaces to be provided with: 1) Monitoring of Fresh Air Supply Flowrate.  <b>AND</b> 2) Designed for 30% additional fresh air above ASHRAE Standard 62.1 Ventilation and Indoor Air Quality - minimum requirements.  <b>AND</b> 3) Advanced air filtration (MERV - 13 equivalent or higher)  <b>OR</b> Full adoption of ASHRAE Standard 241 - Control of Infectious Aerosols	1	1	
EQ4	<b>INDOOR AIR POLLUTANT AND MOULD CONTROL</b>			
	Permanently occupied spaces to be provided with: 1) Provision of Low VOC building finishes.  <b>AND</b> 2) Implementation of Mould Control Strategies,	1	1	
EQ5	<b>ACCESS TO DAYLIGHT AND VIEW</b>			
	All permanently occupied spaces to be provided with daylight and view to outdoor for 80% of permanently occupied space. (Data centre designated blackout room excluded)	1	1	
EQ6	<b>BIOPHILIC ENVIRONMENT</b>			
	In permanently occupied spaces, wall and potted plants are incorporated into the design of interior space according to the following: a) Organic potted plants or planted beds cover $\geq 1\%$ of the occupied floor area per floor.  <b>OR</b> b) Organic plant wall per floor, covering wall area $\geq 1\%$ of the occupied floor area.	1	1	

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ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
EQ7	THERMAL COMFORT/ ELECTRICAL LIGHTING LEVEL COMFORT/ INTERNAL NOISE LEVEL			
	<p>For all permanently occupied spaces:</p> <p>1) Demonstrate that Thermal Comfort meets ASHRAE STD 55 requirements</p> <p><b>AND</b></p> <p>2) Demonstrate that office lighting design maintains a luminance level of no more than specified in MS1525:2019 for 90% of NLA as measured at the working plane (~800mm above the floor level)</p> <p><b>AND</b></p> <p>3) Demonstrate that office lighting design maintains a Unified Glare Rating (UGR) no more than MS ISO 8995:2005 for a minimum of 90% of NLA and Colour Rendering Index (CRI) no less than MS ISO 8995:2005 for a minimum of 90% of NLA.</p> <p><b>AND</b></p> <p>4) Demonstrate that the internal sound level does not exceed 45dBAeq for open plans and does not exceed 40dBAeq for closed offices.</p>	1	1	
<b>INDOOR ENVIRONMENTAL QUALITY (EQ) TOTAL</b>			<b>8</b>	

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## SUSTAINABLE SITE MANAGEMENT (SM)

### 9 POINTS

ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
<b>SM1</b>	<b>SITE SELECTION</b>			
	To avoid development of inappropriate sites and reduce the environmental impact from the location of a building on a site.	1	<b>1</b>	
<b>SM2</b>	<b>BROWNFIELD REDEVELOPMENT</b>			
	Project is developed on existing damaged or contaminated sites are typically old industrial sites, old rubbish dumpsites, former mining land, former petrol stations, etc., where some industrial activities had taken place on the site, or on a building that has been abandoned/unused for more than 5 years (from vacancy to occupancy).	1	<b>1</b>	
<b>SM3</b>	<b>SUSTAINABLE COMMUTING</b>			
	<p><i>Commuting for Meals</i> To provide planning, design and implementation of employees' access to meals Data Centre is located within 1 km or 2 or more restaurants,</p> <p><b>OR</b></p> <p>Provision of onsite cafeteria</p> <p><b>OR</b></p> <p>The pantry is equipped for employees to refrigerate, reheat and cook a simple meal, with a comfortable dining area, with a view to a minimum of a live plant, with cleaning and with washing up facilities after a meal.</p> <p><b>AND</b></p> <p><i>Commuting for Essential Amenities</i> To provide opportunities (via timing of shift work or provision of flexi working hours, or etc.) to allow employees to access essential amenities like grocery stores, banks or healthcare facilities before or after work.</p> <p><b>AND</b></p> <p><i>Alternative Transportation</i> (the most appropriate criteria to the site to be met for the project)</p> <ul style="list-style-type: none"> <li>• Site is located within 1 km of an existing or planned and funded, commuter rail or light rail station OR within 500 m of at least one bus stop, <b>OR</b></li> <li>• &gt; 20% of the employees are cycling to work. Provision of bicycle racks and shower facilities for 20% of the full- time equivalent employees, <b>OR</b></li> <li>• &gt; 50% of the employees are carpooling to work, where it can be shown &gt; 50% of the employees are living in a common housing area and a shared commute is provided, <b>OR</b></li> <li>• Provide a minimum of 50% of the carpark with access to a minimum of Level 1 (240-volt, 13 amp) EV charging facility.</li> </ul>	2	<b>2</b>	
<b>SM4</b>	<b>ENVIRONMENTAL MANAGEMENT</b>			
	Vegetated open space 25% above local authority's requirements	1	<b>1</b>	
<b>SM5</b>	<b>POCKET FOREST</b>			
	Pocket Forest to be provided $\geq 5 \text{ m}^2$ or 1% of site area (whichever is greater)	1	<b>1</b>	
<b>SM6</b>	<b>SUSTAINABLE CONSTRUCTION</b>			
	<ul style="list-style-type: none"> <li>• Earthwork – Construction Activity Pollution Control (ESC)</li> <li>• Workers' Site Amenities</li> <li>• Stormwater Design – Quantity and Quality Control. The stormwater design must have these features:                             <ol style="list-style-type: none"> <li>1. Infiltration of stormwater into the ground</li> </ol> </li> </ul> <p style="text-align: center;"><b>AND</b></p> <ol style="list-style-type: none"> <li>2. Trash filtration of stormwater.</li> </ol>	2	<b>2</b>	

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ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
SM7	<b>GREENERY &amp; ROOF</b>			
	<p><b>Hardscape &amp; Greenery Application:</b></p> <ul style="list-style-type: none"> <li>• Provide any combination of the following strategies for 50% of the site hardscape (including sidewalks, courtyards, plazas and parking lots):</li> <li>• Shade (within 5 years of occupancy);</li> <li>• Paving materials with a Solar Reflectance Index (SRI) of at least 29;</li> <li>• Open grid pavement system;</li> </ul> <p><b>Roof Application:</b></p> <p>a) Use roofing material with a Solar Reflectance Index (SRI) equal to or greater than the value in the table below for a minimum of 75% of the exposed roof surface,</p> <p><b>OR</b></p> <p>b) Install a vegetated roof for at least 50% of the exposed roof area</p> <p><b>OR</b></p> <p>c) Install high albedo and vegetated roof surfaces that, in combination, meet the following criteria:</p> <ul style="list-style-type: none"> <li>• <math>(\text{Area of SRI Roof} / 0.75) + (\text{Area of vegetated roof} / 0.5) &gt; \text{Total Roof Area}</math></li> <li>• Roof Type Slope SRI:</li> <li>• Low-Sloped Roof <math>\leq 2:12 \rightarrow 78</math></li> <li>• Steep-Sloped Roof <math>&gt; 2:12 \rightarrow 29</math></li> </ul>	1	1	
<b>SUSTAINABLE SITE MANAGEMENT (SM) TOTAL</b>			<b>9</b>	

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## MATERIAL AND RESOURCES (MR)

19 POINTS

ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
<b>MR1</b>	<b>EMBODIED CARBON DECLARATION AND REDUCTION</b>			
	(Cement, Concrete, Wall, Reinforcement Steel Bar, Window Frame, Window Glazing, Road Pavement, Prefabricated Modular System Gl, Battery)  a) For each product declared with lower embodied carbon than base CIDB value : 1 point b) For each product with > 25% lower embodied carbon than base CIDB value: additional 1 point	6	<b>6</b>	
<b>MR2</b>	<b>CIRCULARITY</b>			
	Where ≥ 30% (based on cost) of the total project material value is shown to be a part of circular economy	1		
	Where ≥ 45% (based on cost) of the total project material value is shown to be a part of circular economy	2		
	Where ≥ 55% (based on cost) of the total project material value is shown to be a part of circular economy	3		
	Where ≥ 60% (based on cost) of the total project material value is shown to be a part of circular economy	4		
	Each Circularity Building Material Cost is multiplied by the Valuation shown in the table below for this computation.			
	Feature	Description		
	Reuse of Material	Encouraging the sharing and reuse of products and materials prominently installed on site.	3	
	Bio-based materials	Utilizing biodegradable or renewable materials (wood, bamboo, etc).	2	
	Circular Business models	Products from companies with a post-consumer recovery program to collect back waste materials to be recycled into new products.	1.5	
	Recycled Material	Post-consumer recovery and recycling of materials.	1	
	Recycled Material Industrial symbiosis	Pre-consumer recovery and recycling of materials.	0.5	
		Collaborating with other industries to exchange waste products as inputs for their processes.	0.5	
	Product designed for circularity economy	Recyclability: Using materials that are easily recyclable and recoverable.	0.5	
	Product designed for circularity economy Reuse of materials during Construction.	Modularity: products designed with interchangeable parts to facilitate repair and upgrade that is significantly beyond business-as-usual.	1	
		Repairability: products designed to be easily repaired and maintained significantly beyond business-as-usual.	0.5	
		Design for disassembly: Designing products to be easily disassembled for recycling or reuse that is significantly beyond business-as-usual.	1.5	
		Durability: products designed to extend the lifespan significantly beyond business-as-usual (≥ 2x the norm).	1	
		Reusable formwork, etc. To demonstrate that the impact during construction is significantly beyond business-as-usual.	0.5	
	*Each product only qualifies once for the highest valuation category			

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ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
MR3	<b>REGIONAL MATERIALS AND SUSTAINABLE TIMBER</b>			
	<p><b>Regional Materials:</b> Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500km radius of the project site for ≥ 20% (based on cost) of the total material value. Mechanical, electrical and plumbing components shall not be included. Only include materials permanently installed in the project.</p> <p><b>AND</b></p> <p><b>Sustainable Timber Use:</b> Where ≥ 50% of wood-based materials and products used are certified .</p>	1	1	
MR4	<b>STORAGE AND COLLECTION OF RECYCLABLES</b>			
	<p>During Construction, provide dedicated area/s and storage for collection of non-hazardous materials for recycling .</p> <p><b>AND</b></p> <p>During Building Occupancy, provide permanent recycling bins</p>	1	1	
MR5	<b>E-WASTE MANAGEMENT</b>			
	Provision of ISO 14001 certification for E-Waste management .	1	1	
MR6	<b>CONSTRUCTION WASTE MANAGEMENT</b>			
	Recycle and/ or salvage ≥ 50% volume of non-hazardous construction debris	1	2	
	Recycle and/ or salvage ≥ 75% volume of non-hazardous construction debris .	2		
MR7	<b>REFRIGERANTS &amp; CLEAN AGENTS</b>			
	Use zero Ozone Depleting Potential (ODP) products: non-CFC refrigerants/clean agents. GWP < 700 kgCO <sub>2</sub> .	1	1	
MR8	<b>INDUSTRIALISED BUILDING SYSTEM (IBS)</b>			
	CIDB IBS score ≥ 50%	1	1	
MR9	<b>SUSTAINABLE UNINTERRUPTED POWER SUPPLY (UPS)</b>			
	<p>1) ≥ 50% of battery used are recycled battery (UL 1974)</p> <p><b>OR</b></p> <p>2) A minimum of 3 documented sustainability features of the battery are provided:</p> <ul style="list-style-type: none"> <li>● Long cycle life &gt; 2,000 cycles</li> <li>● Ethically sourced raw materials</li> <li>● Low embodied carbon batteries</li> <li>● Recyclability of &gt; 95% by weight</li> <li>● Low-pollutant manufacturing process with proper handling and disposal of hazardous waste</li> <li>● Disposal and recovery program for used batteries from data centre for recycling or reuse</li> </ul> <p><b>OR</b></p> <p>3) Alternative sustainable UPS technology (substantiated by documentation)</p>	1	1	
MR10	<b>SUSTAINABLE FUEL FOR BACKUP GENERATORS</b>			
	100% use of biofuel or green hydrogen for backup generators.	1	1	
<b>MATERIAL AND RESOURCES (MR) TOTAL</b>			<b>19</b>	

**5 WATER EFFICIENCY (WE)**  
**19 POINTS**

ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
<b>WE1</b>	<b>WATER USAGE EFFECTIVENESS (WUE) (l/kWh per year)</b>			
	≤ 2.40	1	<b>12</b>	
	≤ 2.31	2		
	≤ 2.23	3		
	≤ 2.14	4		
	≤ 2.05	5		
	≤ 1.97	6		
	≤ 1.88	7		
	≤ 1.80	8		
	≤ 1.71	9		
	≤ 1.62	10		
	≤ 1.54	11		
	≤ 1.45	12		
<b>WE2</b>	<b>DROUGHT CONTINGENCY PLAN</b>			
	WUE during Drought		<b>3</b>	
	WUE (l/kWh per year) ≤ 2.00	1		
	WUE (l/kWh per year) ≤ 1.80	2		
	WUE (l/kWh per year) ≤ 1.60	3		
<b>WE3</b>	<b>WATER EFFICIENT FITTING/ IRRIGATION/ METERING/ LEAK DETECTION</b>			
	a) Water Efficient Fittings b) Water Efficient Irrigation c) Water Submetering d) Water Leakage Detection on all critical routes  Any 3 for 1 point, All 4 for 2 points	2	<b>2</b>	
<b>WE4</b>	<b>RAINWATER HARVESTING</b>			
	Rainwater harvested resulted in a reduction of potable water use by ≥ 15%  OR  Rainwater harvested ≥ 1 m <sup>3</sup> /yr per m <sup>2</sup> of building footprint	1	<b>1</b>	
<b>WE5</b>	<b>WATER RECYCLING</b>			
	Water recycled ≥ 10% wastewater recycled & reuse	1	<b>1</b>	
<b>WATER EFFICIENCY (WE) TOTAL</b>			<b>19</b>	

**6 INNOVATION (IN)**  
**19 POINTS**

ITEM	AREA OF ASSESSMENT	DETAIL POINTS	MAX POINTS	SCORES
<b>IN1</b>	<b>INNOVATIONS</b>			
	Provide design team and project the opportunity to be awarded points for exceptional performance above the requirements set by GBI rating system.			
	<p>1 point for each approved innovation and environmental design initiative up to a maximum of 6 points, such as, but not limited to:</p> <ul style="list-style-type: none"> <li>• Condensate water recovery (accounting for at least 50% of total AHUs/FCUs) for use as cooling tower make-up water, etc.</li> <li>• Co-generation / Tri-generation system</li> <li>• Thermal / PCM / Thermal Mass storage system (accounting for at least 25% of total required capacity)</li> <li>• Solar thermal technology / Solar Thermal Cooling (generating at least 10% of total required capacity)</li> <li>• Heat recovery system (contributing to at least 10% of total required capacity)</li> <li>• Heat pipe technology</li> <li>• Light pipes</li> <li>• Auto-condenser tube cleaning system (fitted to plant equipment serving at least 50% of total capacity)</li> <li>• Non-chemical water treatment system (serving at least 50% of total capacity.)</li> <li>• Vacuum degasser cleaning system for chilled water piping system</li> <li>• Dynamic balancing control valve system (for entire chilled water system)</li> <li>• Mixed mode / low energy ventilation system</li> <li>• Advanced air filtration technology (serving at least 50% of the NLA)</li> <li>• Waterless urinals (fitted to all male toilets)</li> <li>• Central vacuum system (serving at least 50% of NLA of office component)</li> <li>• Central Pneumatic Waste Collection system</li> <li>• Self-cleaning façade</li> <li>• Electrochromic glazed façade</li> <li>• Refrigerant leakage detection and recycling facilities</li> <li>• Recycling of all fire system water during regular testing</li> <li>• Cold Aisle Containment</li> </ul>	6	6	
<b>IN2</b>	<b>GREEN BUILDING INDEX FACILITATOR (GBIF)</b>			
	To support and encourage the design integration required for Green Building Index rated buildings and to streamline the application and certification process.	1	1	
	Appointment of a Green Building Index Facilitator (GBIF)			
<b>INNOVATION (IN) TOTAL</b>			<b>7</b>	