



green building index

www.greenbuildingindex.org

Includes information on:

GBI TOOLS | GBI REGISTRATION FEES | INCENTIVES FOR GBI AND GREEN BUILDINGS

The Green Building Index: Malaysia's International Green Benchmark



What is a green building?

A green building is an environmentally sustainable building that in its design, construction and operation, reduces the overall impact of the built environment on its surroundings. Green buildings focus on improving the efficiency of the use of resources (such as energy, water and materials) while reducing the impact on human health and the environment throughout its lifecycle. This can be achieved through better siting, design, construction, operation, maintenance and removal.

Why Green Building?

By design, they save energy and resources, reduce waste and minimise emissions of toxic substances.

- They use resources efficiently, have significant operational savings and increase workplace productivity.
- They are in harmony with the local climate and surrounding environment.
- They improve our quality of life whilst sustaining the capacity of the ecosystem at local and global levels.
- They show that a company or organisation is well run, responsible and committed to the future.

What is the Green Building Index?

The Green Building Index (GBI) is Malaysia's Green Rating Tool for buildings and towns, created to promote sustainability in the built environment and raise awareness of environmental issues among developers, architects, engineers, planners, designers, contractors and the general public, so that we can look forward to a brighter and greener future.

The GBI Rating Tool provides the opportunity for developers and building owners to design and construct green, sustainable buildings that can provide energy and water savings, a healthier indoor environment, better connectivity to public transport and the adoption of recycling and greenery for their projects thus reducing their negative impact on the environment.

The GBI Rating Tool is developed specifically for the Malaysian tropical climate, environmental and development context, and cultural and social needs. It was created to:

- Define green buildings by establishing a common language and standard of measurement.
- Transform the built environment to reduce negative environmental impacts.
- Promote integrated, whole-building designs that provide a better environment for all.
- Ensure new buildings remain relevant in the future and existing buildings are refurbished and upgraded to improve the overall quality of building stock.
- Recognise and reward environmental leadership.

GBI Organisation

GBI accreditation for buildings is separated into three tiers. At the highest level is the GBI Accreditation Panel, the independent regulatory body for GBI accreditation. At the intermediate level are the GBI certifiers, consisting of experienced professionals who conduct the assessment and accreditation of project submissions. At the front end are the GBI Facilitators: professionals who work together with clients and design teams to enhance their projects to meet or exceed GBI rating system requirements.

GBI Accreditation Panel (GBIAP) - Regulatory Body

The GBI rating system will be regulated by the GBI Accreditation Panel (GBIAP), an independent committee consisting of senior building professionals that will be reviewing and awarding the GBI rating to qualified projects.

The GBIAP comprises leading industry professionals recognised for their contribution in sustainable developments in Malaysia. They have been actively involved in every step of the rating system's development, ensuring that the rating system is fully tested and compliant to both local and international standards and best practices.

GBI Certifiers - Assessment & Accreditation

GBI Certifiers perform the detailed assessment and accreditation of building projects submitted to the GBI Accreditation Panel for GBI Certification.

GBI Facilitators - GBI Project Development

GBI Facilitators provide services to enable building projects to achieve GBI Accreditation.

"The global effects of carbon emissions and climate change are clear. Buildings, cities and the built environment are the products of civilisation. It is also clear that such development contributes significantly to climate change and the increase in carbon emissions. However, with the Green Building Index, it will allow us to undertake development in a more environment-friendly way."



YAB DATO' SRI MOHD NAJIB
BIN TUN HAJI ABDUL RAZAK
PRIME MINISTER OF MALAYSIA

Rating Tools

Criteria

Buildings are awarded GBI Certification points according to 6 key criteria.



ENERGY EFFICIENCY (EE)

Improve energy consumption by optimising building orientation, minimising solar heat gain through the building envelope, harvesting natural lighting, adopting the best practices in building services including use of renewable energy, and ensuring proper energy, and ensuring proper testing, commissioning and sustainable regular maintenance.



INDOOR ENVIRONMENTAL QUALITY (EQ)

Achieve good indoor environmental performance in indoor air quality, acoustic, visual and thermal comfort. These will involve the use of low volatile organic compound materials, application of quality air filtration, proper control of air temperature, movement and humidity.



SUSTAINABLE SITE PLANNING & MANAGEMENT (SM)

Selecting appropriate sites with planned access to public transportation, community services, open spaces and landscaping. Avoiding and conserving environmentally sensitive areas through the development of existing sites and brownfields. Implementing proper construction management storm water management and reducing the strain on existing infrastructure capacity.



MATERIALS & RESOURCES (MR)

Promote the use of environmental-friendly materials sourced from sustainable sources and recycling. Implement proper construction and waste management with storage, collection and re-use of recyclables and construction formwork and waste.



WATER EFFICIENCY (WE)

Rainwater harvesting, water recycling and water-efficient fittings.



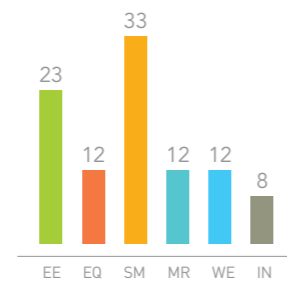
INNOVATION (IN)

Innovative design and initiatives that meet the objectives of the GBI.

POINTS ALLOCATION CHART

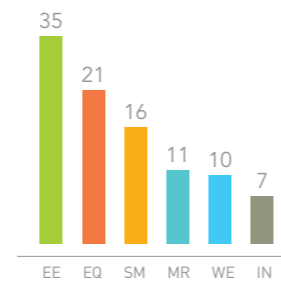
RNC

RESIDENTIAL NEW CONSTRUCTION



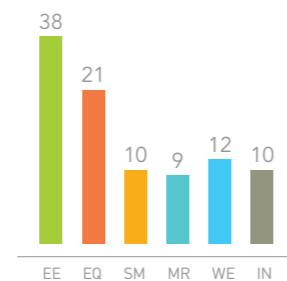
NRNC

NON-RESIDENTIAL NEW CONSTRUCTION



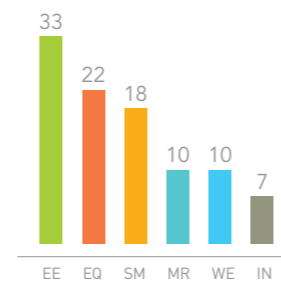
NREB

NON-RESIDENTIAL EXISTING BUILDING



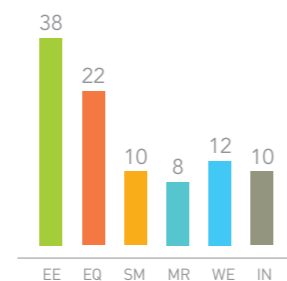
INC

INDUSTRIAL NEW CONSTRUCTION



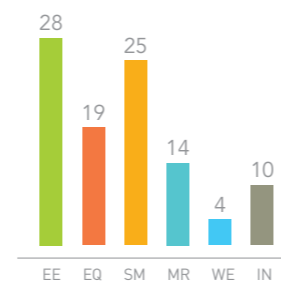
IEB

INDUSTRIAL EXISTING BUILDING



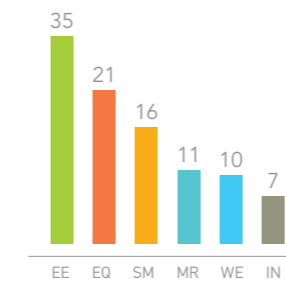
ID

INTERIORS

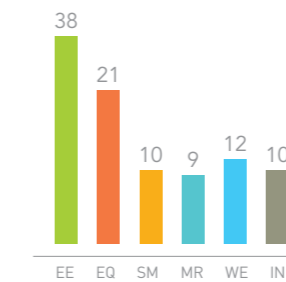


POINTS ALLOCATION CHART

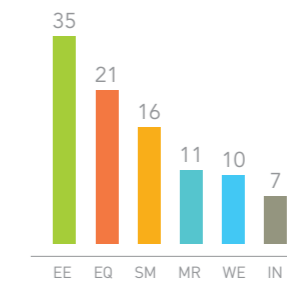
NRNC: DATA CENTRE



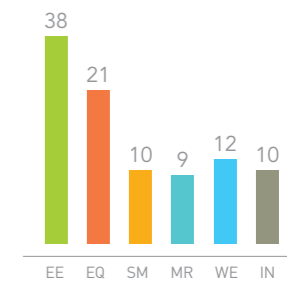
NREB: DATA CENTRE



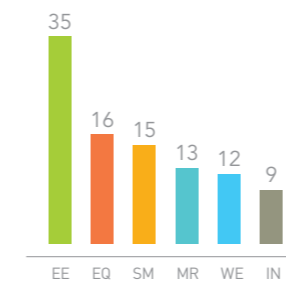
NRNC: RETAIL



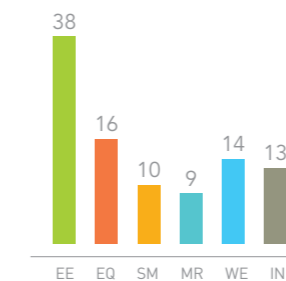
NREB: RETAIL



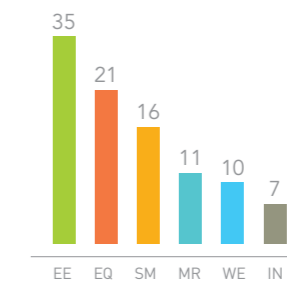
NRNC: HOTEL & RESORT



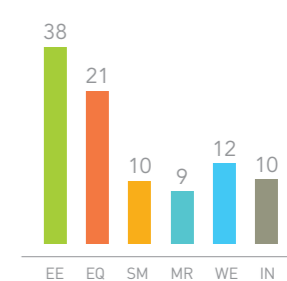
NREB: HOTEL & RESORT



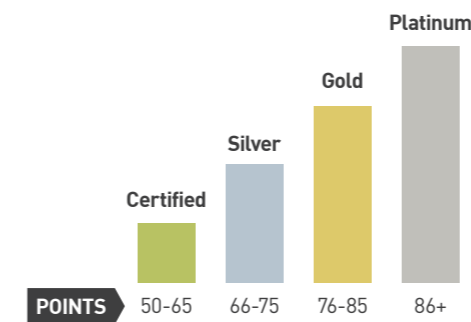
NRNC: HOSPITAL



NREB: HOSPITAL



GBI Classification



Get Assessed

Download the GBI application forms from the website:
www.greenbuildingindex.org



Building Assessment Process

STAGE 1 APPLICATION & REGISTRATION

Complete and submit the GBI application form including contact details, project information and supporting documents to Greenbuildingindex Sdn Bhd (GSB). The Registration fee is set depending on the size of the project. Upon payment of the fees, a GBI registration number will be given and the GBI Terms and Conditions will be signed between the applicant and GSB. A GBI Certifier will then be appointed for the project.

*GSB = Greenbuildingindex Sdn Bhd

STAGE 2 DESIGN ASSESSMENT (DA)

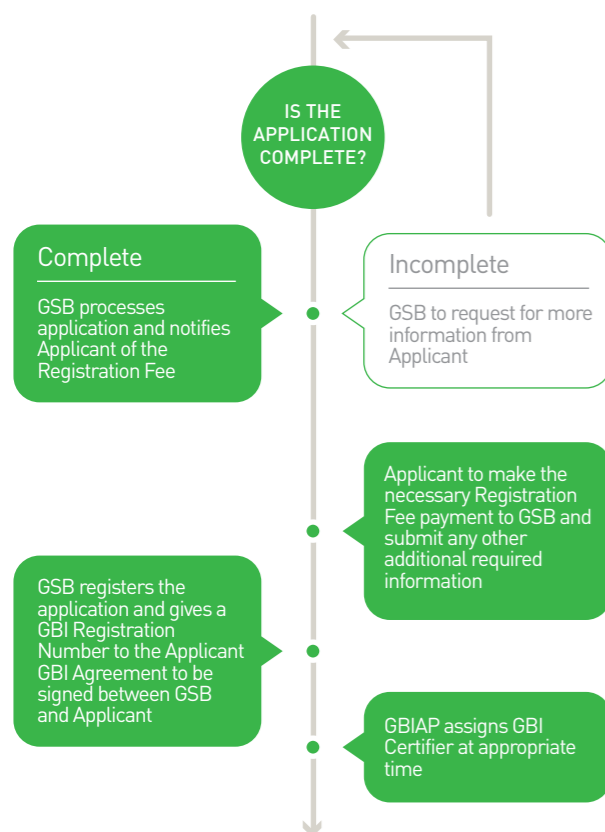
Applicant to submit the project for GBI Design Assessment (DA) either directly or through an appointed GBI Facilitator. Submission should be done when all key criteria of the design are finalised and preferably before the commencement of construction so as to enable the project to be monitored and assessed in its entirety. The GBI Certifier will then undertake the Design Assessment for GSB. This may involve a presentation by the applicant and their project design team or by the GBI Facilitator. The GBI Certifier will, upon completion, table the assessment report to the GBIAP to register and award the certification. The provisional GBI Design Assessment certification will then be issued with the accompanying GBI score sheet to show the scores achieved.

STAGE 3 COMPLETION & VERIFICATION ASSESSMENT (CVA)

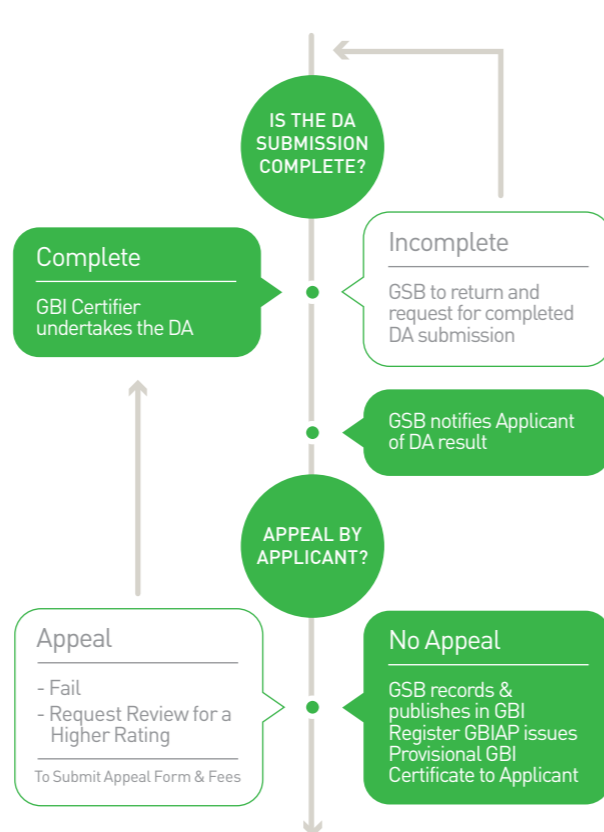
Upon completion of the project, applicant submit for the Completion and Verification Assessment (CVA). This is to be done within 12 months of the completion of the building or when the building becomes 50 per cent occupied, whichever is the earlier. The final GBI award will be issued by the GBIAP upon completion of this CVA assessment. Buildings are awarded GBI Platinum, Gold, Silver or Certified ratings depending on the scores achieved. Buildings will have to be re-assessed every three years in order to maintain their GBI rating to ensure that the buildings are well-maintained.

*LAM = Lembaga Arkitek Malaysia

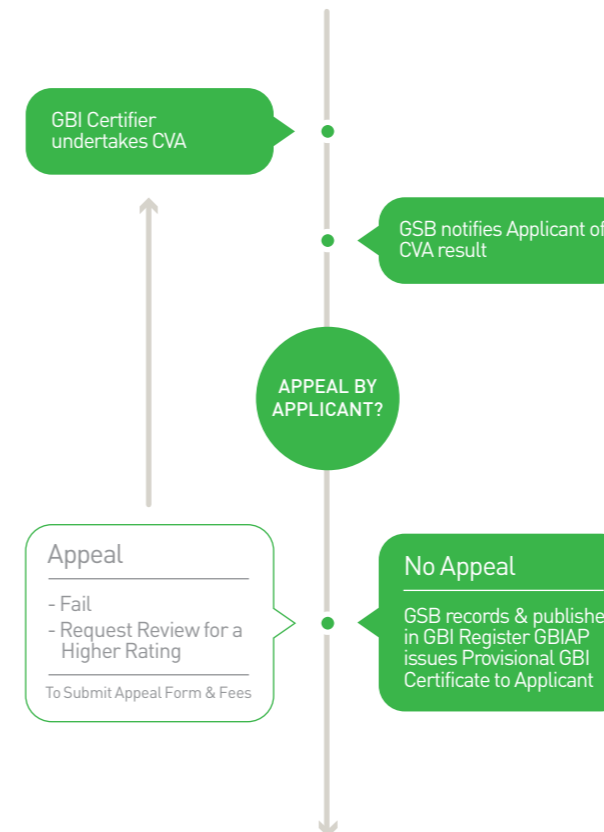
Complete and submit the Application & Registration Form to GSB with supporting documents



Applicant to appoint a Project Coordinator / GBI Facilitator and submit project to GSB for Design Assessment (DA)



Applicant to submit project for Completion & Verification Assessment (CVA) upon completion



Registration Fees and Incentives

SIZE OF PROJECT	TOTAL GROSS FLOOR AREA (m ²)	REGISTRATION FEES (RM) ¹	
		New Construction ²	Existing Building ³
Single Residence	Below 2,000	5,000.00 ⁴	N/A
Small	Up to 4,000	8,000.00	6,000.00
Intermediate	4,001 to 10,000	10,000.00	9,000.00
Medium	10,001 to 30,000	20,000.00	12,000.00
Large	30,001 to 50,000	32,000.00	14,000.00
Extra Large	50,001 to 100,000	45,000.00	19,000.00
Mega Project	Above 100,000	Assessment fee will be determined on a project-by-project basis	

¹ Rates shown are as of the date of Application and Registration and may be reviewed from time to time as appropriate.
² Rates shown are excluding Government Service Tax (GST).
³ Includes Non-Residential New Construction (NRNC), Residential New Construction (RNC) and Industrial New Construction (INC) and NRNC:Data Centre.
⁴ Includes Non-Residential Existing Building (NREB) and Industrial Existing Building (IEB).
⁵ Applicable only to RNC.

PROJECT ASSESSMENT
 Fee as per prescribed includes:
 • One Design Assessment (DA)
 • One Completion & Verification Assessment (CVA)

APPEAL
 A flat rate of RM1,000.00 per credit point

For GBI Township Registration Fees, please refer to page 10.

Incentives for Obtaining a GBI Certificate

Tax Incentive for Green Technology Project

- Investment Tax Allowance (ITA) of 100% of qualifying capital expenditure incurred on a green technology project from the year of assessment 2013 (date on which the first qualifying capital expenditure incurred is not earlier than 25 October 2013) until the year of assessment 2020.
- The allowance can be offset against 70% of statutory income in the year of assessment. Unutilised allowances can be carried forward until they are fully absorbed.
- Green technology project related to renewable energy, energy efficiency, green building, green data centre, and waste management can qualify for this tax incentive.
- Applications received by 31 December 2020 are eligible for this incentive. Applications should be submitted to MIDA.

*Please refer to the Guideline for Application for Incentives and/or Expatriate Posts for Green Technology (GT) at www.mida.gov.my for more details on qualifying activities and eligibility criteria.

Sustainable Townships: Building Better Green Communities

What is a sustainable township?

Sustainable townships are defined as liveable places that meet the diverse needs of the community, both now and in the future. These places are well-planned and designed to provide a high quality of life for the people who live, work and play within the township. Sustainable townships also enhance the surrounding environment by being safe and secure.

The concept of a sustainable development is the balanced approach to addressing the environmental, social and economic issues. Sustainable townships are

integrated planned habitats that focus on the interior and architectural design of the buildings as well as the living environment. Emphasis is placed at maximising energy and resource savings, use and recycling of natural resources, promoting public health and general welfare of the urban population thus reducing the negative impact on the environment. Sustainable townships are also well landscaped and provide the basic amenities for people, such as parks and playgrounds, which can be used to improve interaction and integration in the community.



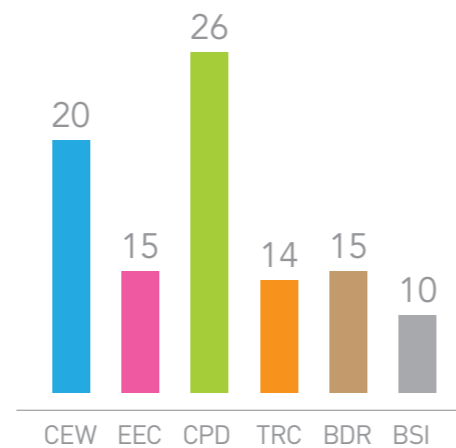
The Triple Bottom Line Model

GBI Township Tool

In recognising the relevance and significance of sustainable townships, the Malaysian Green Building Index was created to provide the building industry a common and verifiable mechanism to benchmark green property development. The GBI Township Tool further improves and sets out a vision for sustainability within the built environment as well as providing guidance for end users to develop sustainable townships.

Green Rating tools are being used to assist the architects, designers, builders, planners, developer as well as the end users to understand the impact of each design choice and solution toward being more environment-friendly.

POINTS ALLOCATION CHART



Criteria For Sustainable Townships in Malaysia



CLIMATE, ENERGY & WATER (CEW)

Balanced ongoing production and consumption of energy and water

Aim for zero net carbon emissions – by maximising passive design principles, minimising the impact of heat island effect, minimising energy consumption, adopting onsite energy generation, utilising renewable energy technologies such as co-generation and micro-generation.

Water neutral – through the reduction of mains water consumption, rainwater harvesting and greywater recycling.



TRANSPORTATION & CONNECTIVITY (TRC)

Well-connected places with a broad range of transportation options

Excellent accessibility, connectivity and are well linked to surrounding districts.

Making good use of existing transport links and make priority and provision for future services – such as rail, bus and cycling networks.



ECOLOGY & ENVIRONMENT (EEC)

Respect the surrounding environment and native ecological systems

Sensitive to the needs of the local ecology & biodiversity and aims to preserve and enhance the ecological value of the natural environment.

Assist in stabilising land – subsidence by reducing the impact of flooding and erosion.



BUILDING & RESOURCES (BDR)

Lower impact on resources by applying the 'more from less' principle

Emphasize the need to minimise the use of highly resource-intensive materials by using a life cycle approach.

Making effective use of local materials and resources for the construction of new communities.



COMMUNITY PLANNING & DESIGN (CPD)

Planned and designed for the benefit of the community

Created using an integrated approach to master planning and best practice urban design principles emphasising people priority and greenspaces.

Such goals help create a strong sense of place for communities – resulting in more livable and diverse neighbourhoods.



BUSINESS & INNOVATION (BSI)

Tailored to respond to local needs in creating business/employment whilst incorporating innovative solutions

Provide employment opportunities for its residents to work closer to their homes and schools and avenues for businesses to form and flourish.

Demonstrate best-practices through the implementation of innovative technologies and solutions at many different levels of the township.

DRIVERS FOR SUSTAINABLE DEVELOPMENT

Climate change and the impacts of global warming have forced both the Government and Industry to make substantial changes to the way they operate and function – the old business-as-usual adage is no longer suitable. The Government has taken significant step as a developing nation to commit to a minimum of 40% reduction of its carbon emissions by 2020 (based on 2005 carbon emission levels). The reduction of carbon emissions serves as part of the solution as there is a clear need for a holistic approach to address sustainability issues – an approach that incorporates both mitigation and adaptation measures.

Countries throughout the globe have adopted various approach and strategy to address climate change and driving sustainable development. As policies and targets have been set by the government, it is vital that a vehicle for implementation is introduced for effective delivery of projects that support the government's goals.

Sustainable Townships Assessment Process

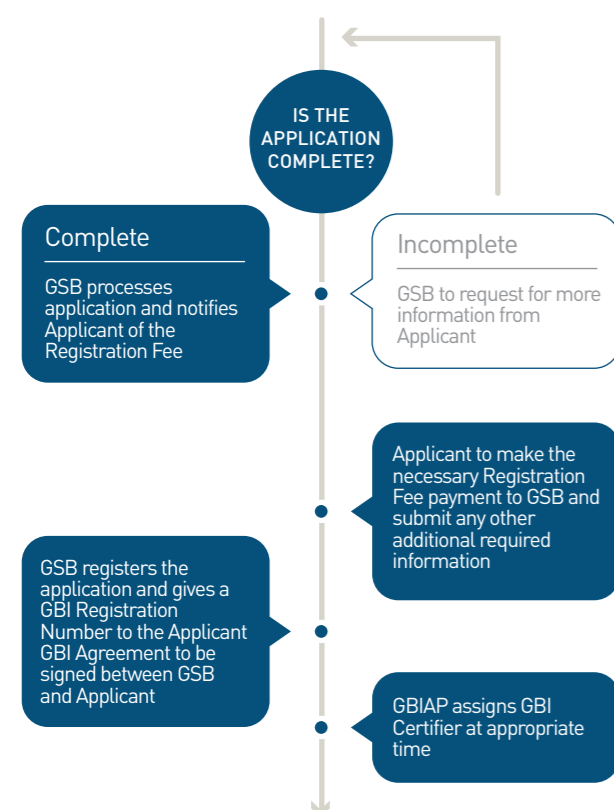
STAGE 1 APPLICATION & REGISTRATION

Complete and submit the GBI Application Form with the Applicants contact details, project information and supporting documents to Greenbuildingindex Sdn Bhd (GSB). The Registration Fee will be set depending on the size of the project. Upon payment of the fees, a GBI registration number will be given and the GBI Terms and Conditions will be signed between the Applicant and GSB. A GBI Certifier will then be appointed for the project.

Note: Minimum to register shall be 20 acres and 50% of buildings to be GBI Certified.

*GSB = Greenbuildingindex Sdn Bhd

Complete and submit the GBI Township Application & Registration Form to GSB with supporting documents

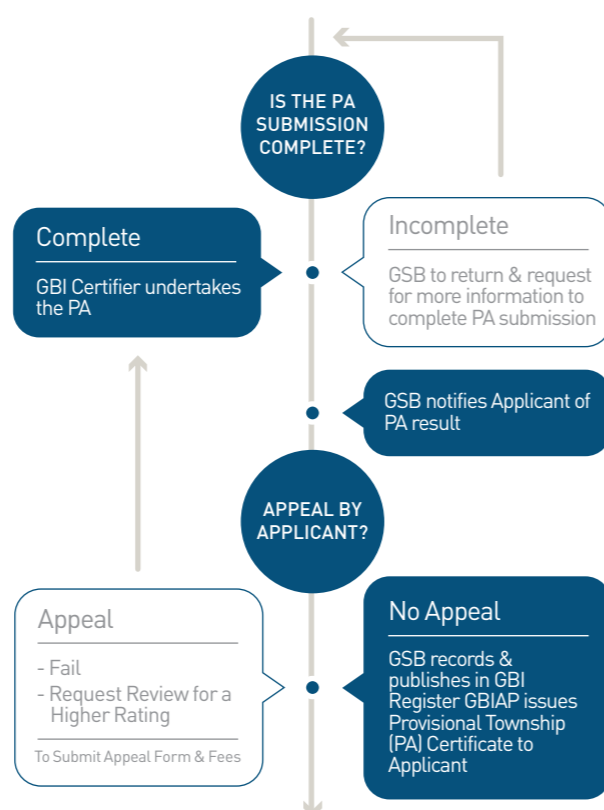


STAGE 2 DESIGN ASSESSMENT (DA)

The applicant submit a development for GBI Planning Assessment (PA) either directly or through an appointed GBI Facilitator. Submission should be done when all key sustainable strategies and criteria are finalised. The GBI Certifier will then undertake the Planning Assessment for GSB. This may include a presentation by the Applicant and the Project Team or by the GBI Facilitator. The GBI Certifier will upon completion, table the assessment report to the GBIAP to register and award the certification. The Provisional GBI Township (PA) certification will then be issued with the accompanying GBI score sheet to show the scores achieved.

*Note the validity of this PA is 5 years.

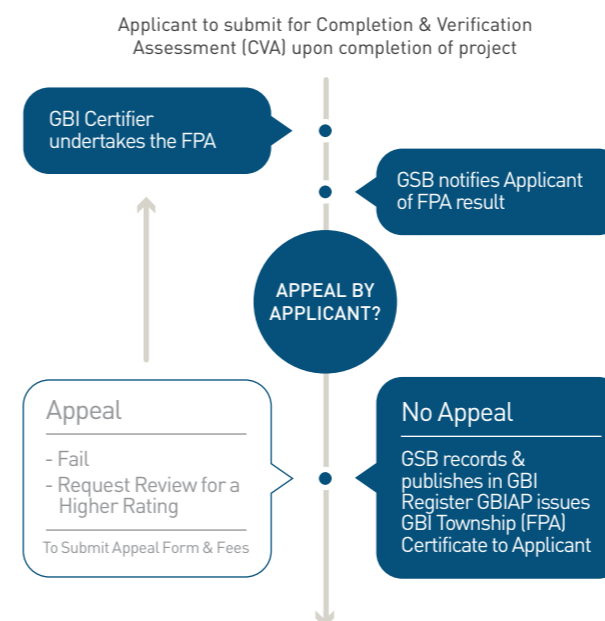
Applicant to appoint Project Coordinator / GBI Facilitator and Submit to GSB for Planning Assessment (PA)



STAGE 3 FINAL PLANNING ASSESSMENT (FPA)

Submit for Final Planning Assessment once the project has received relevant planning approval from the authorities.

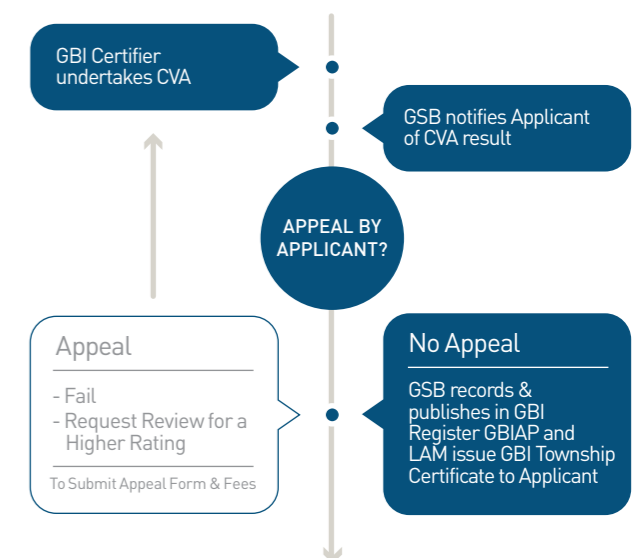
*Note the validity of this FPA is 5 years.



STAGE 4 COMPLETION & VERIFICATION ASSESSMENT (CVA)

Upon completion of all the key sustainable strategies and criteria, submit for Completion and Verification Assessment (CVA). The GBI award will be issued by the GBIAP upon completion of the CVA Assessment.

Applicant to submit for Completion & Verification Assessment (CVA) upon completion of all the key sustainable strategies and criteria



*LAM = Lembaga Arkitek Malaysia

GBI Township Registration Fees

SIZE OF PROJECT	ACREAGE (ACRES)	REGISTRATION FEES (RM)
Small	20 to 40	15,000.00
Intermediate	41 to 100	29,000.00
Medium	101 to 150	40,000.00
Large	151 to 350	55,000.00
Extra Large	351 to 500	90,000.00
Mega Project	501 to 1,000	135,000.00
	Above 1,000	Fee will be determined on a project-by-project basis

PROJECT ASSESSMENT

- Fee as per prescribed includes:
- One Planning Assessment (PA)
 - One Final Planning Assessment (FPA) (PA/FPA are subject to renewal every 5 years. Additional Fees will apply.)
 - One Completion & Verification Assessment (CVA)

Application of the Township Framework

Achieving the Green Building Index certification for a township not only demonstrates the green commitment of a responsible developer but also establishes an environmental legacy and sustainability caveat for all future buildings in the township to match and outperform the community's expectations. In ensuring that standard industry measurements and guidelines are adhered to, this framework facilitates discussion around how sustainable townships are planned, designed, built, operated and maintained.

The framework can be used by a broad range of stakeholders; from federal and local Government Agencies to architects, town planners, urban designers, contractors and developers.

The six core categories for delivering sustainable Township can be applied to all levels of township creation, management, operation and governance. Following are some areas of application and its impact.

“ The challenges our planet faces - particularly climate change and sustainable economic development - are global in nature and so require global solutions.

The building sector, which consumes as much as 40 percent of the world’s energy, 12 percent of its water and contributes 40 percent of the waste sent to landfill, is a major part of this global problem.

However, the building sector can be an even bigger part of the solution.

As we live in one world, we have a collective responsibility to work together to achieve change around the globe. The World Green Building Council is working within the Asia-Pacific region to promote the benefits of sustainable building practices, and Malaysia has embraced the potential of green building.

International research confirms that green buildings consume less energy, less water and generate less waste, and create a healthy and productive environment for employees.

Green building practices can reduce a building’s operating costs by as much as 9 percent, increase building values by 7.5 percent and realise a 6.6 percent increase in return on investment. So, green buildings don’t just make sound ecological and environment sense - they make sound economic sense too.”



TONY ARNEL
CHAIRMAN, WORLD GREEN BUILDING COUNCIL

“ We are demonstrating global leadership once again by being the first nation in the world to support a green industrial building assessment tool that takes into account holistically the resource efficiency of its manufacturing processes via Green Building Index. The spillover effect of the this is not inconsequential, as high-value, high-tech industries and services such as photovoltaic and biomass technologies will be able to drive high value-added growth, translating into more business and job opportunities for the local economy and thus contributing significantly towards our Green National Income.”



YAB DATO' SRI MOHD NAJIB BIN TUN HAJI ABDUL RAZAK
PRIME MINISTER OF MALAYSIA

“ As the Ministry which is responsible for the policies in green technology of the country, we are proud to be supporting this significant initiative. With a common language and standard measurement for building performance, property developers and owners can now work towards achieving buildings with greater emphasis on this “Green Building Index”, and tenants are property guided in the selection of energy efficient premises.”



YB DATO' SRI PETER CHIN FAH KUI
FORMER MINISTER OF ENERGY, GREEN TECHNOLOGY AND WATER MALAYSIA (KETHTA)



IS SUPPORTED BY

