



MALAYSIA

Country Report on Building Energy
Code, Green Building Code and
ASEAN Energy Award

OUTLINE

01

INTRODUCTION

02

BUILDING ENERGY CODE

- UBBL 1984 & MS 1525: 2014
- NATIONAL BUILDING ENERGY LABELLING FOR GOVERNMENT BUILDINGS

03

GREEN ENERGY CODE

- GREEN BUILDING INDEX (GBI)
- MyCREST

04

ASEAN ENERGY AWARDS

- ASEAN ENERGY AWARDS 2017
- NATIONAL ENERGY AWARDS

Ahmad Firdaus

BUILDING ENERGY CODE

UNIFORM BUILDING BY-LAWS (UBBL) 1984

- UBBL 1984 was gazette by federal government to establish a standardised set of building regulations for the country.
- The enforcement of UBBL is governed by the states government.

CODE OF PRACTICE ON EE AND USE OF RE FOR NON-RESIDENTIAL BUILDINGS

- This code of practice gives guidance on the effective use of energy including the application of renewable energy in new and existing non-residential buildings.

UBBL 2012 (38A. EE IN BUILDINGS)

1. New or renovated non-residential buildings with airconditioned space exceeding 4,000 square metres shall be designed to meet requirements of MS1525 with regards to OTTV & RTTV and provided with Energy Management System.
2. The roof for all buildings shall not have a thermal transmittance (U-value) greater than 0.4 W/m²K for Light (under 50 kg/m²) weight roof; and 0.6 W/m²K for Heavy (above 50 kg/m²) weight roof, unless provided with other shading or cooling means.



UBBL 1984

MS 1525: 2007; 2014

**UBBL 2012
(Amendment on EE)**

NATIONAL BUILDING ENERGY LABELLING FOR GOVERNMENT BUILDINGS






National Building Energy Labelling for Government Buildings will be presented in Green Technology and Climate Change Council chaired by the Prime Minister.

Star rating:
1 star: Not efficient
5 star: Most efficient

Building energy performance
Unit: kWh/m²/year



Building category:
Office/Hospital/University
/School & others

-  To ascertain energy performance of Government buildings
-  To accelerate efforts making Government buildings energy efficient through Government Lead By Example
-  To create healthy competition among building owners to improving energy-use
-  To provide and disseminate information to building occupants on energy usage performance of the building compared to energy efficient building
-  To help Government achieve national commitment to reduce GHG emissions intensity of GDP by 45% by 2030

PROPOSED BUILDING ENERGY LABEL



National Building Energy Label will be the first move to assist Government buildings to be certified as Green Building

GREEN BUILDING CODE

- Green Building Rating Tools
- Voluntary



POINTS	GBI RATING
86 to 100 points	Platinum
76 to 85 points	Gold
66 to 75 points	Silver
50 to 65 points	Certified



ENERGY EFFICIENCY (EE)



MATERIALS & RESOURCES (MR)



INDOOR ENVIRONMENTAL QUALITY (EQ)



WATER EFFICIENCY (WE)



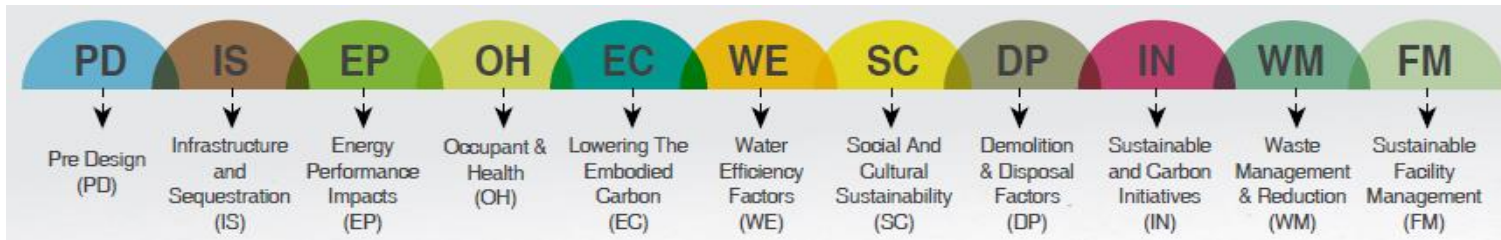
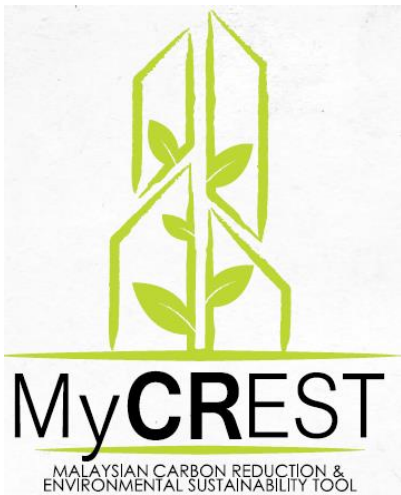
SUSTAINABLE SITE PLANNING & MANAGEMENT (SM)



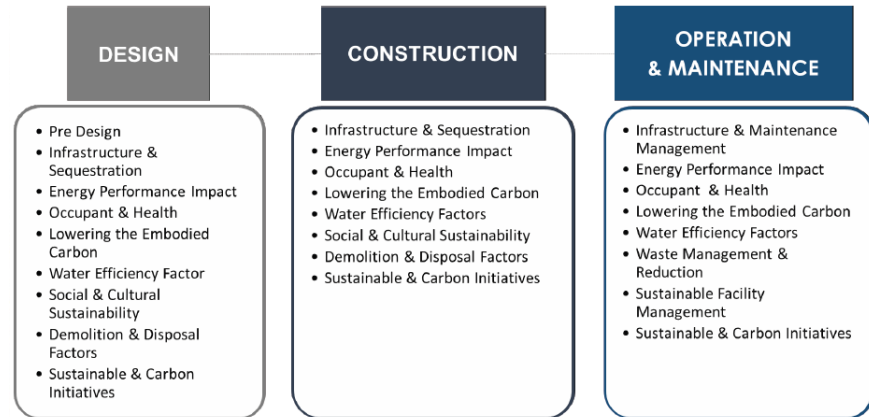
INNOVATION (IN)

RATING Level	TOTAL as of 15 OCTOBER 2017	NRNC Non Residential New Construction	RNC Residential New Construction	INC Industrial New Construction	NREB Non Residential Existing Building	IEB Industrial Existing Building	ID Interior	T Township
PLATINUM 86 to 100 points	17 (4%)	11	4	-	1	-	-	1
GOLD 76 to 85 points	94 (22%)	51	36	1	1	1	1	3
SILVER 66 to 75 points	45 (11%)	22	15	2	2	-	-	4
Certified 50 to 65 points	268 (63%)	126	120	8	9	2	-	3
Total Certified	424	210	175	11	13	3	1	11

GREEN BUILDING RATING TOOL



MYCREST RATING	Percentage SCORE (%)
★★★★★	80-100
★★★★	70 - 79
★★★	60 - 69
★★	50 - 59
★	40 - 49



ASEAN ENERGY AWARDS 2017

CATEGORY	ENTRY	
	NO.	NAME
ASEAN BEST PRACTICES COMPETITION FOR ENERGY MANAGEMENT IN BUILDINGS AND INDUSTRIES		
SMALL AND MEDIUM 1. Buildings 2. Industries	1	i. Pioneer Technologies, Johor
LARGE 1. Buildings 2. Industries	2 1	i. Malaysia Airports Holding Berhad ii. Dewan Bandaraya Kuala Lumpur i. Omron Malaysia, Selangor
SPECIAL SUBMISSION		
ASEAN ENERGY EFFICIENCY AND CONSERVATION (EE&C) BEST PRACTICES COMPETITION FOR ENERGY EFFICIENT BUILDINGS		
GREEN BUILDING 1. Small and Medium 2. Large		
NEW AND EXISTING BUILDING		
TROPICAL BUILDING		
RETROFITTED BUILDING	2	i. Putra Specialist Hospital, Melaka ii. Politeknik Sultan Azlan Shah, Perak
SPECIAL SUBMISSION		
TOTAL	6	

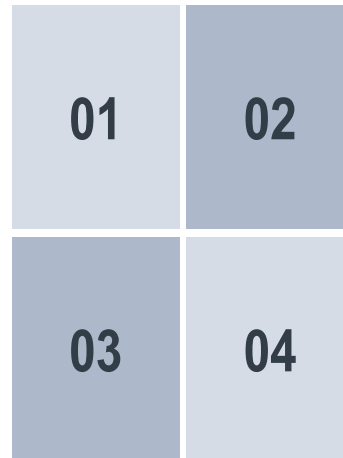
NATIONAL ENERGY AND GREEN TECHNOLOGY AWARDS 2018

RENEWABLE ENERGY

- Based on ASEAN Energy Awards Format
- Divided into four categories:
 - i. On-grid that including national and local grid;
 - ii. Off grid that including thermal and power;
 - iii. Cogeneration; and
 - iv. Biofuel
- Winner of NEGTA will represent country in ASEAN Energy Awards

INNOVATIVE PRE-COMMERCIAL PRODUCTS/ SERVICES

- Prototype to Pilot
- The products & services in this category comprises of the innovative solutions in development in green technology and should demonstrate the component of energy and sustainable energy management



ENERGY EFFICIENCY

- Based on ASEAN Energy Awards Format
- Divided into two categories:
 - i. Energy Management
 - ii. Energy efficiency Building
- Winner of NEGTA will represent country in ASEAN Energy Awards

INNOVATIVE COMERCIAL PRODUCT/ SOLUTION

- Pilot to Commercialization
- The innovative commercial products & services in this category should demonstrate the component of energy efficiency and sustainable energy management Each winner in this category is able to demonstrate the potential of the commercial value of its product.

PROPOSAL ON ASEAN ENERGY AWARDS

PROPOSAL 1

Dividing evaluation criteria into sub-criteria with smaller mark allocation & corresponding compliance criteria for awarding mark

Specific Objectives

- a. To serve as a guideline for the judges to mark the entries;
- b. To ease the judges in marking the entries; and
- c. To reduce the wide variance in the range of marks awarded by the judges due to broad criteria and wide latitude in awarding marks.



PROPOSAL 2

Converting individual judges' scores into at-par scores based on individual judges' ranking for competition entries

Specific Objective

To reduce the effect of the wide variance in the range of marks awarded by the judges due to different background of the individual judges.

THANK YOU