

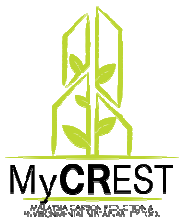


MyCREST

MALAYSIA CARBON REDUCTION &
ENVIRONMENTAL SUSTAINABILITY TOOL



Definisi MyCREST



- MyCREST: Malaysian Carbon Reduction and Environmental Sustainability Tool.
- Satu alat yang membimbing individu yang terlibat dalam rekabentuk, pembinaan dan penyelenggaraan sesuatu bangunan untuk mengaplikasikan amalan pembangunan mampan.
- Ia juga bertujuan untuk mengukur pelepasan karbon sebenar di setiap peringkat kitaran hayat bangunan

ASAS PEWUJUDAN

HASIL GABUNGAN JKR
DAN CIDB DI BAWAH
KEMENTERIAN KERJA
RAYA MALAYSIA

Bersandarkan
empat (4)
tunggak
utama **Dasar
Teknologi
Hijau Negara**

01

Setiap kriteria
di dalam
MyCREST
menjurus ke
arah
pencapaian
kriteria-kriteria
yang disenarai
di dalam
Dasar
Teknologi Hijau
Negara.

02

Memenuhi
Matlamat
**Jangka
Sederhana
Dasar
Teknologi Hijau
Nasional
(RMk-11)**

03

Komitmen YAB.
Perdana
Menteri
Malaysia

04

ASAS PEWUJUDAN

PERBANDINGAN SKIM PENARAFAN ANTARABANGSA



AUSTRALIA	SINGAPURA	AUSTRALIA	USA	UK	JEPUN	MALAYSIA
						 
NSW Office of environmental and heritage	BCA (Min. Of National Development)	Green Building Council, Australia	US Building Council	BRE Global Ltd.	Japan Sustainable Building Consortium	
KERAJAAN	KERAJAAN	NGO	NGO	NGO	NGO	KERAJAAN

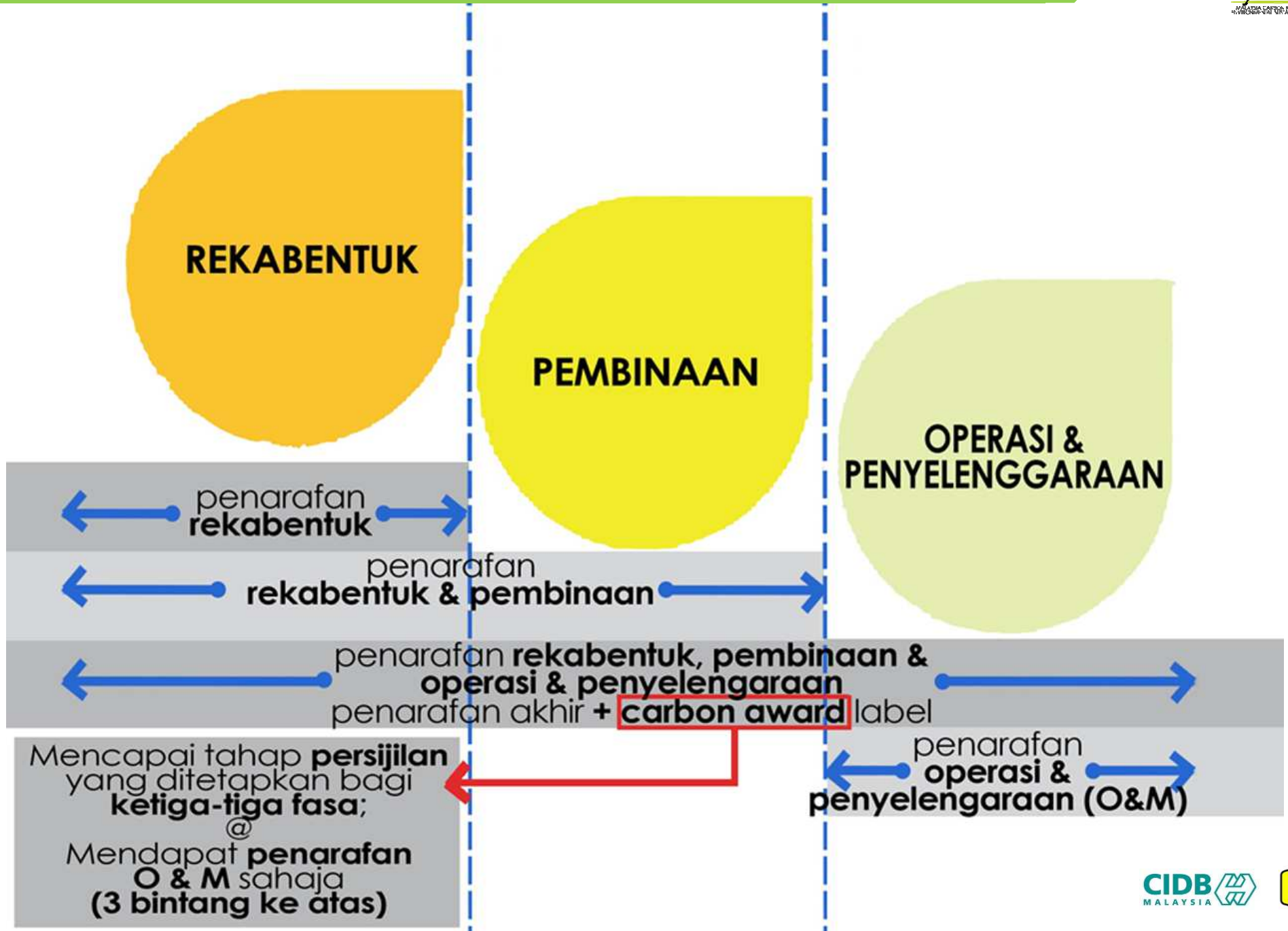
AGENSI PELAKSANA

PERBANDINGAN



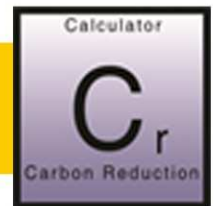
	MyCREST	pH JKR
1	Pengiktirafan peringkat Nasional	Pengiktirafan peringkat JKR
2	Dilaksanakan oleh pihak CIDB dan JKR	Dilaksanakan oleh pihak JKR
3	Diaplikasi pada bangunan kerajaan dan swasta	Diaplikasi pada bangunan kerajaan sahaja
4	Mengukur tahap kelestarian dengan indikator karbon	Mengukur tahap kelestarian projek sahaja
5	Penilaian setiap peringkat (perancangan, pembinaan dan semasa pengoperasian) boleh dijalankan secara berasingan mengikut keperluan	Penilaian secara keseluruhan
6	MyCREST $\geq$ 50 Juta	pH >20 Juta < 50 Juta

FASA PENARAFAN UNTUK BANGUNAN BARU & SEDIA ADA

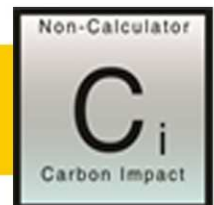


Mengintegrasikan
impak
kelestarian
dengan
indikator
karbon

Carbon Reduction - **directly** relates to carbon reduction

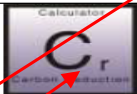


Carbon Impact - **indirectly** relates to carbon reduction



Sustainable - **do not relate** to carbon emission/reduction



ENERGY PERFORMANCE IMPACTS				CONSTRUCTION		
EP17	Metered Electricity Usage During Construction			EP	17	CR
	Metered	Electricity	Usage During Construction	1 Point		

Core Criteria

Sub Criteria name

Carbon based identification

Aims & requirements

Reference No.

Sub Criteria Points

Sub Criteria Title

CALCULATOR
EP-CAL02: ELECTRICITY USAGE DURING CONSTRUCTION

Aim

The aim is to record the electrical consumption during construction stage and hence minimize energy consumption by on-site utilities.

Requirement

1 POINT:

Provide a copy of monthly electrical bill during the entire construction period.

Justification

During the construction period, carbon is being emitted through the usage of electricity for site office, worker accommodation and some activities done during this stage.

Approach & Strategy

Approach & Strategy

Record and documented the electricity bills during the entire construction period.

Carbon Calculator

Refer: Calculator ID: EP-CAL02:
Electricity Usage during Construction

Submittals

Submittals

1. Copies of monthly electrical bill for the entire construction period
2. List of the area/activities (i.e. site office, worker amenities, canteen, etc.) that include electricity bills.

Standards & References

References, Standard, and Codes

1. MS 1525:2007 Code of Practice for Energy Efficiency and Use of Renewable Energy for Non-Residential Buildings.
2. Energy Efficiency Guideline for CKE Design

1. Peringkat Rekabentuk

	Max Cr Point	Max Ci Point	Max S Point	IN Point (Bonus)
Bangunan Berhawa Dingin	82	39	14	7
Bangunan Tidak Berhawa Dingin	39	55	14	7

2. Peringkat Pembinaan

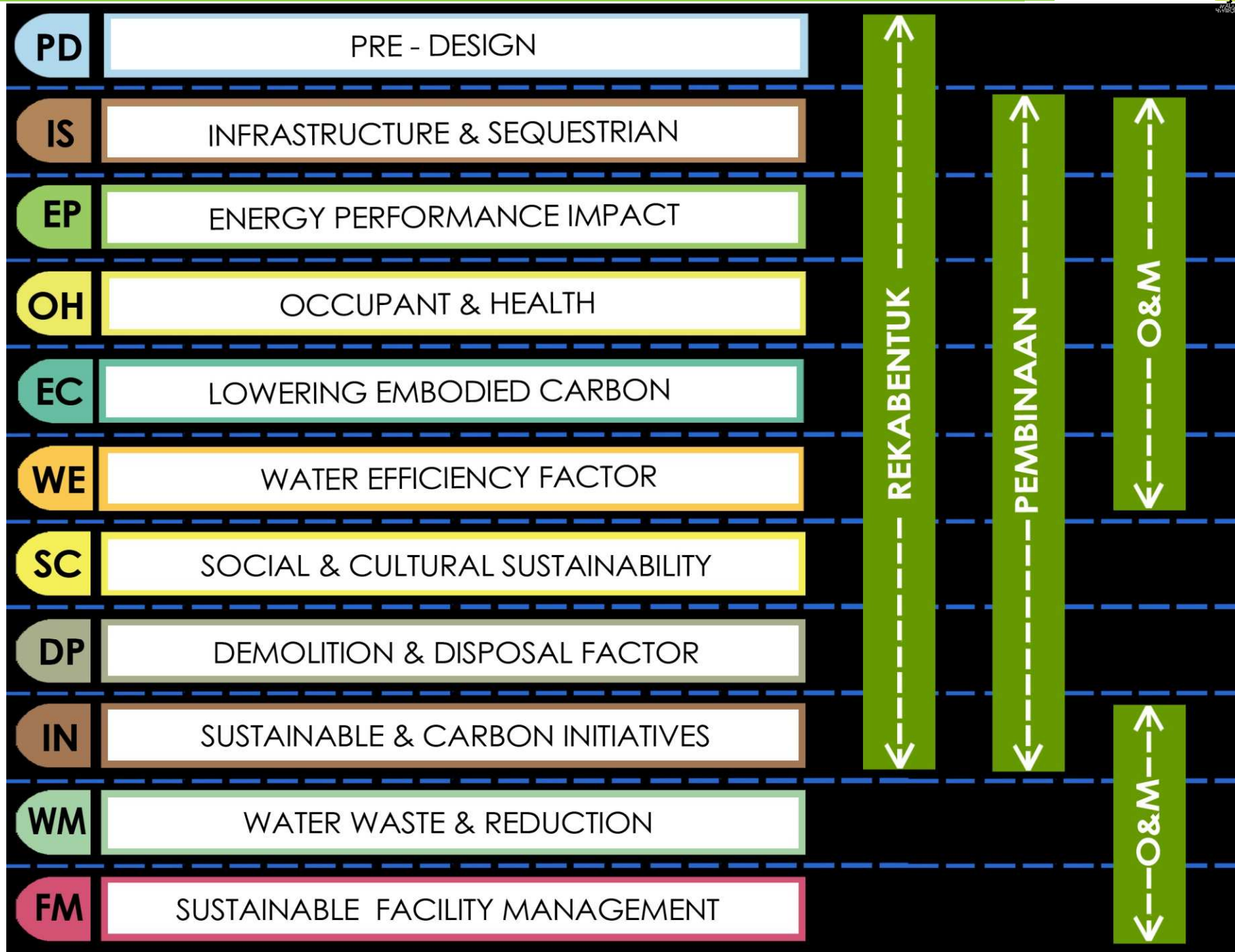
	Max Cr Point	Max Ci Point	Max S Point	IN Point (Bonus)
Bangunan Berhawa Dingin	86	29	13	7
Bangunan Tidak Berhawa Dingin	45	41	13	7

3. Peringkat Operasi & Penyelenggaraan.

Max Cr Point	Max Ci Point	Max S Point	IN Point (Bonus)
73	28	14	7

KRITERIA PEMARKAHAN

SETIAP FASA



KLASIFIKASI PENARAFAN



- Jenis Pengiktirafan akhir yang boleh dimiliki oleh sesebuah projek:
 1. Pengiktirafan Rekabentuk & Pembinaan
 2. Pengiktirafan Rekabentuk, Pembinaan & Operasi.
 3. Pengiktirafan Operasi dan Penyelenggaraan.



CERTIFICATION

MALAYSIAN CARBON REDUCTION & ENVIRONMENTAL SUSTAINABILITY TOOL (MyCREST)

MYCREST CERTIFICATE NO.
MYCREST-KLIA2-0022

DATE OF ISSUANCE
25 FEBRUARY 2015



MYCREST
MALAYSIAN CARBON REDUCTION &
ENVIRONMENTAL SUSTAINABILITY TOOL

XXX BUILDING HAS SUCCESSFULLY ACHIEVED THE FOLLOWING LEVEL OF CERTIFICATION ESTABLISHED BY THE
CONSTRUCTION INDUSTRY DEVELOPMENT BOARD AND VERIFIED BY THE MYCREST ACCREDIT PANEL

MYCREST FULL SCORE

★★★★★

XXX BUILDING
LOT 1, BANDAR LAPANGAN TERBANG
ANTARABANGSA SEPANG, 64000, SEPANG,
SELANGOR, MALAYSIA.

OWNER/APPLICANT
XXX HOLDING BERHAD

DESIGN
★★★★★

CONSTRUCTION
★★★★★

EXAMPLE

certified by
DESIGN
★★★★★
CONSTRUCTION
★★★★★
MYCREST

CHAIRMAN
MYCREST ACCREDITATION PANEL

CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

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OPERATION & MAINTENANCE
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EXAMPLE

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DESIGN & CONSTRUCTION
★★★★★
OPERATION & MAINTENANCE
★★★★★
MYCREST

approved by
CO₂
REDUCED
YEAR ON YEAR
MYCREST

CHAIRMAN
MYCREST ACCREDITATION PANEL

CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

PERSIJILAN

1. Pengiktirafan Rekabentuk & Pembinaan

Rekabentuk (50 %)



Pembinaan (50 %)



PERSIJILAN

2. Pengiktirafan Rekabentuk, Pembinaan & Operasi.

*Pengiktirafan layak untuk mendapat "Carbon Reduce Award"

Rekabentuk (50 %)



Pembinaan (50 %)



**Operasi Penyelenggaraan
(sekurang-kurangnya min skor)**



3. Pengiktirafan Operasi dan Penyelenggaraan.

*Pengiktirafan operasi dan penyelenggaraan boleh mendapatkan “*Carbon Reduce Award*” dengan syarat mendapat sekurang-kurangnya 3 bintang.



ASAS-ASAS PEMBAYARAN

Perbandingan kos pentadbiran MyCREST dengan Fi yang dikenakan oleh Sistem Penarafan Lain di Malaysia.

SAIZ BANGUNAN	YURAN PENDAFTARAN	PEMBAHARUAN
< 2000 m ²	RM 2,000 (RM1.00/m ²)	-
2001 - 4000 m ²	RM 4,000 (RM1.00/m ²)	RM 1,200
4001 - 10,000 m ²	RM 5,000 (RM0.50/m ²)	RM 1,500
10,001 - 30,000 m ²	RM 10,000 (RM0.33/m ²)	RM 3,000
30,001 - 50,000 m ²	RM 15,000 (RM0.30/m ²)	RM 4,500
50,001 - 100,000 m ²	RM 20,000 (RM0.20/m ²)	RM 6,000
> 100,000 m ²	Ditentukan berdasarkan projek	

Manual Rujukan MyCREST:

1. MyCREST Introduction
2. MyCREST Design Stage Reference Guide
3. MyCREST Construction Reference Guide
4. MyCREST Operation & Maintenance Reference Guide.



MUAT TURUN : <http://www.cidb.gov.my/index.php/en/focus-areas/sustainable-construction>

- **MyCREST 2012- 2017**

Tahun	MyCREST
2012	0
2013	0
2014	1
2015	0
2016	7
2017	14
Jumlah	22

MyCREST 2017

BIL.	NO. DAFTAR	PROJEK	TARIKH	GFA (Ground Floor Area) (m ²)
			MyCREST	
8	0029 (CIDB)	PEMBINAAN BANGUNAN TAMBAHAN HOSPITAL MIRI, SARAWAK	2/2/2017	30,551.50
9	0031 (CIDB)	PEMBINAAN BANGUNAN TAMBAHAN HOSPITAL TANAH MERAH, KELANTAN	2/15/2017	81,290.00
10	0032 (CIDB)	Politeknik Besut	27/4/2017	60,814.60
11	0033 (CIDB)	Politeknik Bagan Datuk	27/4/2017	47,000.00
12	0035 (CIDB)	Cadangan Pembinaan Bangunan Baru ibu Pejabat Daerah Jeli, Kelantan	5/11/2017	31,213.88



MyCREST 2017

BIL.	NO. DAFTAR	PROJEK	TARIKH	GFA (Ground Floor Area) (m ²)
			MyCREST	
13	0036 (CIDB)	Pusat Pejabat dan Pusat Latihan Unit Tindakan Khas, Semenyih, Selangor	5/11/2017	63,000.00
14		Penjara Lahad Datu, Sabah	5/11/2017	Tidak dinyatakan
15		Pembinaan Depot Tahanan Imegresen Dan Kuarters Jawi, Pulau Pinang	28/4/2017	Tidak dinyatakan
16		Pembinaan Pusat Rekod Pendaftaran Negara, Negeri Sembilan	4/20/2017	Belum ditentukan
17		Cadangan Pembinaan Operasi Hadapan (FOB) Di Pulau Mabul, Semporna, Sabah	7/4/2017	2,167.00
18		Cadangan Pembinaan Kompleks APMM Daerah Maritim Miri, Sarawak	5/4/2017	2,000.00
19	0028 (CIDB)	Menara Kerja Raya, Blok G	2/21/2017	52,272.00
20		Cadangan Pembinaan Kompleks APMM Semporna, Sabah	5/4/2017	3,408.75
21		Naiktaraf Hospital Kajang, Selangor Darul Ehsan	8/28/2017	53,056.00
22		Naiktaraf Hospital Kajang, Selangor Darul Ehsan	8/28/2017	53,056.00



TERIMA KASIH