



GBI
PROFESSIONAL
SERIES 2016



NEW GBI INCENTIVES UPDATES & GREEN COST CALCULATION

29th Mar 2016

GBI Green Cost Procedure & Submission and Common Errors

29th Mar 2016

Ir TL Chen DL&F.ASHRAE, PEng, CEng



Income Tax Allowance

PROCEDURE

- Submission of Green Cost can only proceed after GBI CVA certificate is issued.
- Green Cost submissions must be endorsed by the respective qualified professionals (Ar, Sr and Ir)

Is there any template submission document ?

Template for Green Cost Submission

Qualifying **Capital** Expenditure (QE) submission

1. Overall Summary of QE/Green Cost comprising the 6 GBI Criteria
2. Breakdown Summary of each Criteria
3. Appendices to support each breakdown item

Template for Green Cost Submission

Qualifying **Capital** Expenditure (QE) submission

- 1. Overall Summary** of QE/Green Cost comprising the 6 GBI Criteria
2. Breakdown Summary of each Criteria
3. Appendices to support each breakdown item

OVERALL SUMMARY

Project Name: XX Office Tower, Selangor
Owner's Name: YY Sdn Bhd
GBI Certification: NRNC GOLD
CCC date: 28 April 2011
Total Construction Cost: RM227,800,000
GFA (Cost/m²): 130,500m² (RM1,746)

No	GBI NRNC CRITERIA	Capital Expenditure without Green Cost RM	Capital Expenditure with Green Cost RM	Qualifying Expenditure RM
1	EE	5,068,900	12,581,300	7,512,400
2	EQ	1,000,400	3,452,700	2,452,300
3	SM	0	920,800	920,800
4	MR	0	0	0
5	WE	196,500	1,037,600	841,100
6	IN	7,400,000	15,939,400	8,539,400
TOTAL				20,266,000

We certify that this cost is in accordance with the terms of the GBI guidelines:

SR QQQQQQ

AR XXXXXX

IR M&EM&E

Template for Green Cost Submission

Qualifying **Capital** Expenditure (QE) submission

1. Overall Summary of QE/Green Cost comprising the 6 GBI Criteria
- 2. Breakdown Summary** of each Criteria
3. Appendices to support each breakdown item

BREAKDOWN SUMMARY

Item	Description	Criteria	Capital Cost without Green RM	Capital Cost with Green RM	Qualifying Expense RM	App
1	Energy Efficiency (EE)	EE				
1.1	Sunshading Devices	EE1	0	492,400	492,400	A1
1.2	Low-e glazing	EE1	1,218,700	2,900,400	1,681,700	A1
1.3	Aerated Bricks	EE1	201,400	469,400	268,000	A1
1.4	BAS (incremental only)	EE1	0	1,440,800	1,440,800	A1
1.5	Photo & Motion Sensors	EE2	0	585,400	585,400	A1
1.6	Digital Power Meters	EE3	160,800	758,100	597,300	A2
1.7	Variable Speed Drives	EE5	0	1,277,800	1,277.800	A2
1.8	High EE Chillers	EE5	3,488,000	3,989,200	501,200	A2
1.9	Thermal Chw Plant Ctrl Sys	EE5	0	465,900	465,900	A2
1.10	High EE Motors for:					
	Chw pumpsets, CTs (incr only)	EE5	0	80,200	80,200	A2
	AHU (incremental only)	EE5	0	121,700	121,700	A2
	TOTAL C/F				7,512,400	

BREAKDOWN SUMMARY

Item	Description	Criteria	Capital Cost without Green RM	Capital Cost with Green RM	Qualifying Expense RM	App
1	Energy Efficiency (EE)	EE				
1.1	Sunshading Devices	EE1	0	492,400	492,400	A1
1.2	Low-e glazing	EE1	1,218,700	2,900,400	1,681,700	A1
1.3	Aerated Bricks	EE1	201,400	469,400	268,000	A1
1.4	BAS (incremental only)	EE1	0	1,440,800	1,440,800	A1
1.5	Photo & Motion Sensors	EE2	0	585,400	585,400	A1
1.6	Digital Power Meters	EE3	160,800	758,100	597,300	A2
1.7	Variable Speed Drives	EE5	0	1,277,800	1,277.800	A2
1.8	High EE Chillers	EE5	3,488,000	3,989,200	501,200	A2
1.9	Thermal Chw Plant Ctrl Sys	EE5	0	465,900	465,900	A2
1.10	High EE Motors for:					

We certify that this cost is in accordance with the terms of the GBI guidelines:

SR QQQQQQ

AR XXXXXX

IR M&EM&E

Template for Green Cost Submission

Qualifying **Capital** Expenditure (QE) submission

1. Overall Summary of QE/Green Cost comprising the 6 GBI Criteria
2. Breakdown Summary of each Criteria
- 3. Appendices** to support each breakdown item

APPENDIX **A1**

Item	Description		Crit	Base Cost				Green Cost			BQ	QE
	Base	Green		Unit	Qty	@	Amt	Qty	@	Amt	ref	RM
1.1	Nil	Perforated Sheet for sun shade	EE1	-	-	-	-	860	460	395600	LA:3	395600
1.1a	Nil	Hori Fin	EE1	-	-	-	-	242	400	96800	LA:3	96800
Sub-total for Item 1.1 – Shading Devices											492400	
1.2	9.38 mm Laminated Clear Glass	9.38 mm Laminated low-e glass	EE1	m ²	7283	161	1172563	7283	376	2738408	LA:4	1565845
1.2a	9.38 mm Laminated Clear Glass	9.38 mm Laminate low-e with ceramic frit	EE1	m ²	265	161	42787	265	598	158642	VO5	115855
Sub-total for Item 1.2 – Low-e Glazing											1681700	

We certify that this cost is in accordance with the terms of the GBI guidelines:

SR QQQQQQ

AR XXXXXX

IR M&EM&E

BREAKDOWN SUMMARY

Item	Description	Criteria	Capital Cost without Green RM	Capital Cost with Green RM	Qualifying Expense RM	App
1	Energy Efficiency (EE)	EE				
1.1	Sunshading Devices	EE1	0	492,400	492,400	A1
1.2	Low-e glazing	EE1	1,218,700	2,900,400	1,681,700	A1
1.3	Aerated Bricks	EE1	201,400	469,400	268,000	A1
1.4	BAS (incremental only)	EE1	0	1,440,800	1,440,800	A1
1.5	Photo & Motion Sensors	EE2	0	585,400	585,400	A1
1.6	Digital Power Meters	EE3	160,800	758,100	597,300	A2
1.7	Variable Speed Drives	EE5	0	1,277,800	1,277.800	A2
1.8	High EE Chillers	EE5	3,488,000	3,989,200	501,200	A2
1.9	Thermal Chw Plant Ctrl Sys	EE5	0	465,900	465,900	A2
1.10	High EE Motors for:					
	Chw pumpsets, CTs <small>(incr)</small>	EE5	0	80,200	80,200	A2
	AHU (incremental only)	EE5	0	121,700	121,700	A2
	TOTAL C/F				7,512,400	

BREAKDOWN SUMMARY

Item	Description	Criteria	Capital without Green	Capital with Green	Qualifying Expense	App
6	Innovation (IN)					
6.1	Thermal Storage System & RC Tank	IN1	7,400,000	15,314,400	7,914,400	A6
6.2	UV Lights for AHUs	IN1	0	570,000	570,000	A6
6.3	Condensate Water Recovery	IN1	0	55,000	55,000	A6
	TOTAL C/F		7,400,000	15,939,400	8,539,400	

We certify that this cost is in accordance with the terms of the GBI guidelines:

SR QQQQQQ

AR XXXXXX

IR M&EM&E

Eg of Green Cost for GBI Gold

- Total Construction Cost = RM 227,800,000
- Approved QE = RM 20,266,000
- QE/Green Cost = **8.9%**
- Thermal Storage Sys = RM 7,914,400
- QE without TES = RM 12,351,600
- Green Cost without TES = **5.4%**

Does *green* pay off (in Malaysia)?
 - Non-Residential Buildings -
 projected data by Ir TL Chen (not verified:2009)

Green Building Index Rating	Average M'sian Bldg	Meets MS1525	GBI Certified	GBI Silver	GBI Gold	GBI Platinum
BEI kWh/m ² .year	250	200 - 220	150 - 180	120 - 150	100- 120	<100
Energy Savings %	Base	10 - 20	30 - 40	40 -50	50 - 60	> 60
Incremental construction cost %	Base	1 - 3 (0 - 3)* -	5 - 8 (1 - 5)* (0 - 2)#	8 - 12 (3 - 8)* (1 - 3)#	12 - 15 (5 - 10)* (3 - 5)#	>15 (6 - 13)* (5 - 8)#

* Denotes revised projection in 2011
 # Available real data up to 2014

Income Tax Allowance

Who is authorized to verify and/or certify these costs ?

Income Tax Allowance

Signatories for submission

Cost Category	RNC / NRNC	INC
Overall Submission	Ar	Ar or Ir (C)
All Costs except M&E items	Sr	Sr
Costs for M&E items	Ir (M or E)	Ir (M or E)

Income Tax Allowance

Signatories for submission

Cost Category	NREB ¹	NREB ²	NREB ³	NREB ⁴	NREB ⁵	NREB ⁶
Overall Submission	Ar	Ar	Sr	Ir (C)	Ir (M or E)	X
All Costs except M&E items	Sr	Ar	Sr	Ir (C)	Ir (M or E)	X
Costs for M&E items	Ir (M or E)	Ir (M or E)	Ir (M or E)	Ir (M or E)	Ir (M or E)	X

¹ denotes the full compliment of consultants are engaged for the retrofit building

² denotes only Ar, Ir (C) and Ir (M&E) are engaged for the retrofit building

³ denotes only Sr, Ir (C) and Ir (M&E) are engaged for the retrofit building

⁴ denotes only Ir (C) and Ir (M&E) are engaged for the retrofit building

⁵ denotes only Ir (M&E) are engaged for the retrofit building

⁶ denotes only one discipline of Professional (denoted as X i.e. Ar or Sr or Ir <of any discipline>) is engaged for the retrofit building

Income Tax Allowance

Signatories for submission

Cost Category	IEB ¹	IEB ²	IEB ³	IEB ⁴	IEB ⁵	IEB ⁶
Overall Submission	Ar or Ir (C)	Ar or Ir (C)	Ir (C)	Ir (C)	Ir (M or E)	X
All Costs except M&E items	Sr	Ar or Ir (C)	Sr	Ir (C)	Ir (M or E)	X
Costs for M&E items	Ir (M or E)	Ir (M or E)	Ir (M or E)	Ir (M or E)	Ir (M or E)	X

¹ denotes the full compliment of consultants are engaged for the retrofit building

² denotes only Ar, Ir (C) and Ir (M&E) are engaged for the retrofit building

³ denotes only Ir (C), Sr and Ir (M&E) are engaged for the retrofit building

⁴ denotes only Ir (C) and Ir (M&E) are engaged for the retrofit building

⁵ denotes only Ir (M&E) are engaged for the retrofit building

⁶ denotes only one discipline of Professional (denoted as X i.e. Ar or Sr or Ir <of any discipline>) is engaged for the retrofit building

Income Tax Allowance

Can any Ar, Sr and Ir be the signatories ?

Income Tax Allowance

- **Ar** denotes a Professional Architect registered with Lembaga Arkitek Malaysia and practising through an Architectural Consultancy Practice
- **Sr** denotes a Professional Quantity Surveyor registered with Lembaga Juruukur Bahan Malaysia and practising through a QS Consultancy Practice
- **Ir** denotes a Professional Engineer registered with Lembaga Jurutera Malaysia and practising through an Engineering Consultancy Practice
- **Ir (M or E, C)** denotes Professional Engineer of Mechanical or Electrical, or Civil discipline

Income Tax Exemption

New Incentive Schemes

1. GITA (PROJECTS) for GBI buildings
[Green Investment Tax Allowance]
2. **GITE (SERVICES) for GBIF & CxS companies**
[Green Income Tax Exemption]

EFFECTIVE 25/10/13 - 31/12/20

Income Tax Exemption

Income Tax Exemption (Services)

Income tax exemption of 100% of statutory income from the year of assessment 2013 until the year of assessment 2020.

The company must comply with the conditions stated in the approval letter.

Income Tax Exemption

Eligibility Criteria

For a company which undertake green technology services activities, the company must meet the criteria of green services as follows;

- a) At least one competent / qualified personnel in green technology;
- b) Must have a green policy related to environmental/sustainability; and
- c) 100% income must be derived from green technology services

Income Tax Exemption

Eligibility Criteria cont'd

Note:

- Competent person is defined as holding a certificate of competency as a service provider in the related field of green technology
- Green Policy is a statement about the commitment to sustainability and environment management by the company

Income Tax Exemption

Qualifying Activities

Green Building

Services related to *testing and commissioning of green building equipment and system*, and services related to *green building design and consultancy services*

Income Tax Exemption

Qualifying Date

However

Eligible companies must be registered or operationalized after 25th October 2013 !!



THANK YOU

www.greenbuildingindex.org

www.mgbc.org.my