

APPLICATION FOR APPROVAL OF DESIGN SCORE FOR BUILDING UNDERGOING MAJOR ENERGY-USE CHANGE

[Section 22FB of the Building Control Act (Cap.29) (the "Act")]

Date:

To: Commissioner of Building Control
 Building & Construction Authority
 5 Maxwell Road #02-00
 Tower Block, MND Complex
 Singapore 069110
 Website: <http://www.bca.gov.sg>

Instructions

1. This form may be submitted electronically or manually.
 - a. All electronic submissions are to be digitally signed by the appointed Mechanical Engineer.
 - b. All manual submissions are to be signed by the appointed Mechanical Engineer.
2. This form may take 10 - 15 mins to complete.

Particulars of Application

Project Reference Number*	<input type="text"/>												
Building Name	<input type="text"/>												
Block Number*	<input type="text"/>												
Road Name*	<input type="text"/>												
Postal Code*	<input type="text"/>												
ADD button	Click to add a new block (new building name, block number and postal code to be added)												
Building Sector*	<input type="text"/> Private/Public												
Building Type*	<input type="text"/> Hotel/Retail/Office/Mixed Development/Others												
Building Age*	<input type="text"/> years												
Gross Floor Area*	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 20%;">GFA/m²</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Hotel</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Office</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Retail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Others</td> <td></td> </tr> <tr> <td>Total</td> <td>(auto)</td> </tr> </tbody> </table> <p>*For mixed development, fill in the areas for the respective building type.</p>		GFA/m ²	<input type="checkbox"/> Hotel		<input type="checkbox"/> Office		<input type="checkbox"/> Retail		<input type="checkbox"/> Others		Total	(auto)
	GFA/m ²												
<input type="checkbox"/> Hotel													
<input type="checkbox"/> Office													
<input type="checkbox"/> Retail													
<input type="checkbox"/> Others													
Total	(auto)												

Section I Particulars of Building Owner(s) / Management Corporation	
Name*	<input type="text"/>
NRIC*	<input type="text"/>
Company Name / MCST Plan No.	<input type="text"/>
UEN	<input type="text"/>
Designation*	<input type="text"/>
Address*	<input type="text"/>
Telephone No.*	<input type="text"/>
Handphone No.	<input type="text"/>
Fax No.	<input type="text"/>
Email Address*	<input type="text"/>
Section II Particulars of Mechanical Engineer	
Name*	<input type="text"/>
Registration No. *	<input type="text"/>
Firm Name*	<input type="text"/>
UEN	<input type="text"/>
Address*	<input type="text"/>
Telephone No.*	<input type="text"/>
Handphone No.	<input type="text"/>
Fax No.	<input type="text"/>
Email Address*	<input type="text"/>
Declaration by Mechanical Engineer	
II.1. I hereby confirm the correctness of the design score for the above building as provided in the declaration letter (Submission of Design Score Calculations) to the owner as attached.	<input type="checkbox"/>
II.2. I confirm that I have been appointed under Section 22FB of the Act as the Mechanical Engineer in respect of the works herein described.	<input type="checkbox"/>
II.3 I certify that I have prepared the works shown in the plans and assessed the design score submitted with this application and I hereby declare that that the said works and design score meet the minimum environmental sustainability standard applicable to the building subject to such waiver/modification granted under Section 22FB(5) of the Act and are in accordance with the Act and the Building Control (Environmental Sustainability Measures for Existing Buildings) Regulations 2013.	<input type="checkbox"/>

II.4. I hereby confirm that the notification of appointment/authorization form titled 'BCA-EB-NAPPE01' and attached to this application is duly signed by the relevant parties.	<input type="checkbox"/>
II.5. I hereby declare that the particulars provided in this application and the attached forms/documents are correct.	<input type="checkbox"/>

Section III Submission Details

Age of building cooling system before retrofit*	<input style="width: 90%;" type="text"/> years
Expected date of commencement of retrofitting works*	<input style="width: 90%;" type="text"/> dd/mm/yyyy
Expected completion date*	<input style="width: 90%;" type="text"/> dd/mm/yyyy
Building Cooling Load Details*	Audited <input type="checkbox"/> Designed <input type="checkbox"/>

(a) Current Building Cooling System Details

Unitary System – Split Systems / Variable Refrigerant Flow / Packaged Units

Description of air-conditioning system	<input style="width: 95%;" type="text"/>		
Air-Con area served by unitary system*	<input style="width: 90%;" type="text"/> m ²		
Total Installed Cooling Capacity	<input style="width: 40%;" type="text"/> RT	<input style="width: 40%;" type="text"/> kW	
Total System Efficiency	<input style="width: 40%;" type="text"/> kW/RT	<input style="width: 40%;" type="text"/> COP	

Chiller Plant System

Chiller Plant Configuration*	<input type="checkbox"/> Air-Cooled <input type="checkbox"/> Water-Cooled <input style="width: 95%;" type="text"/>		
Air-Con area served by chiller plant system*	<input style="width: 90%;" type="text"/> m ²		
Daytime average cooling load*	<input style="width: 40%;" type="text"/> RT	Night-time average cooling load* <small><only enable if hotel type checked></small>	<input style="width: 40%;" type="text"/> RT
Daytime average cooling load per air-con area*	<input style="width: 40%;" type="text"/> W/m ²	Night-time average cooling load per air-con area* <small><only enable if hotel type checked></small>	<input style="width: 40%;" type="text"/> W/m ²
Daytime Chiller Plant Efficiency		Night-time Chiller Plant Efficiency <small><only enable if hotel type checked></small>	
Chiller*	<input style="width: 40%;" type="text"/> kW/RT	Chiller*	<input style="width: 40%;" type="text"/> kW/RT
Chilled water pump*	<input style="width: 40%;" type="text"/> kW/RT	Chilled water pump*	<input style="width: 40%;" type="text"/> kW/RT
Condenser water pump*	<input style="width: 40%;" type="text"/> kW/RT	Condenser water pump*	<input style="width: 40%;" type="text"/> kW/RT
Cooling Towers*	<input style="width: 40%;" type="text"/> kW/RT	Cooling Towers*	<input style="width: 40%;" type="text"/> kW/RT
Total System*	<input style="width: 40%;" type="text"/> kW/RT	Total System*	<input style="width: 40%;" type="text"/> kW/RT

(b) Proposed Building Cooling System Details

Unitary System – Split Systems / Variable Refrigerant Flow / Packaged Units

Description of air-conditioning system		[REDACTED]	
Air-Con area served by unitary system*		[REDACTED] m ²	
Total Installed Cooling Capacity		[REDACTED] RT	[REDACTED] kW
Total System Efficiency		[REDACTED] kW/RT	[REDACTED] COP
<input type="checkbox"/> Chiller Plant System			
Chiller Plant Configuration*		<input type="checkbox"/> Air-Cooled <input type="checkbox"/> Water-Cooled	
		[REDACTED]	
Air-Con area served by chiller plant system*		[REDACTED] m ²	
Daytime average cooling load*	[REDACTED] RT	Night-time average cooling load* <i><only enable if hotel type checked></i>	[REDACTED] RT
Daytime average cooling load per air-con area*	[REDACTED] W/m ²	Night-time average cooling load per air-con area* <i><only enable if hotel type checked></i>	[REDACTED] W/m ²
Daytime Chiller Plant Efficiency		Night-time Chiller Plant Efficiency <i><only enable if hotel type checked></i>	
Chiller*	[REDACTED] kW/RT	Chiller*	[REDACTED] kW/RT
Chilled water pump*	[REDACTED] kW/RT	Chilled water pump*	[REDACTED] kW/RT
Condenser water pump*	[REDACTED] kW/RT	Condenser water pump*	[REDACTED] kW/RT
Cooling Towers*	[REDACTED] kW/RT	Cooling Towers*	[REDACTED] kW/RT
Total System*	[REDACTED] kW/RT	Total System*	[REDACTED] kW/RT
Section IV Submission Checklist			
The building is required to achieve a minimum Green Mark score of 50 points			
<input type="checkbox"/> A set of these calculations and declaration letter attached.			
The GM e-Filing No. is GM [REDACTED]-DE [REDACTED]			
The total design Green Mark score is [REDACTED]			
I confirm that the following documents have been submitted along with this application			<input type="checkbox"/>
a) Audit report on current air-conditioning system before retrofitting works is attached (applicable to central chilled-water plant only)			
b) Cooling load calculations (if there is a change in cooling load or unitary air-conditioning systems installed).			
c) Design schematic drawing of proposed air-conditioning system (water-side) is attached			
d) Chiller plant room layout drawing including position of M&V instruments using symbol and color scheme is attached.			
e) Chiller part-load performance data sheet from equipment supplier is attached			

- f) Chilled water pump selection data sheet and pump curves showing design flow and head, pump hydraulic efficiency, motor absorbed power and efficiency is attached
- g) Condenser water pump selection data sheet and pump curves showing design flow and head, pump hydraulic efficiency, motor absorbed power and efficiency is attached
- h) Cooling tower selection data sheet and location plans are attached.
- i) Project schedule for retrofitting works is attached
- j) Worksheet for chiller plant efficiency computation is attached.

FEE COMPUTATION FOR APPROVAL OF RETROFITTING WORKS FOR EXISTING BUILDINGS

Gross Floor Area (m ²)	Rate	Computed Fees
<input type="text"/>		\$ <input type="text"/>
<input type="text"/>		\$ <input type="text"/>

Rates
 \$6,675 for the first 15,000 m2 (or part thereof), and
 \$0.1125 for every subsequent m2 (or part thereof) of the gross floor area.

Total Plan Fee Payable \$

Payee Name:
Company Name:
E-mail address:

Indicate Payment Mode :-

<input type="checkbox"/> Cheque	Cheque No.: <input type="text"/> Bank Name: <input type="text"/> Cheque Date: <input type="text"/> (DD/MM/YYYY) Amount Paid: <input type="text"/>
<input type="checkbox"/> GIRO	
<input type="checkbox"/> ePayment	
<input type="checkbox"/> Paid Earlier	