Submission Booklet

(Checklist for GBPP submission – NOC BCC – Warehouses & Industrial Developments) prior the Dubai Building Code Implementation

APPLICABILITY

Regulation	:	GB-06: Green Building Regulations – Warehouses & Industrial Developments PCFC-TRK-CED-GB-REG-06
Procedure	:	Procedure for NOC-BCC Green Building Submission (Warehouses & Industrial Developments) PCFC-TRK-CED-GB-CP-04(4)
Phase	:	NOC-BCC

This booklet comprises the checklists for various elements of the green building regulations and is meant to be used by the stakeholders concerned for providing accurate information on the project. It comprises the following parts

Disclaimer

This checklist has been developed for project teams to use when compiling the submission documentation for Trakhees Review / Assessment

A completed version of this checklist must be included within the Main Submission.

The accuracy and completeness of the submission is entirely the responsibility of the project team. Trakhees will not be held accountable for incorrect or incomplete submissions sent for assessment.

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

PART-1

PROJECT SUMMARY

Project Name: GB Consultant:

Plot No: Commissioning specialist:

Project description: Engineer of record:

Project Contact Name:

Contact E-Mail:

I, the Project Contact, hereby confirm that:

a) I have reviewed the submission checklist and the contents therein and ascertained that they align with the main submission package provided to Trakhees
b) I understand that Trakhees reserve the right to not assess a submission that is inconsistent with the Regulations, submission procedures and the guidelines
c) I take complete responsibility for the accuracy and completeness of the submission.

Name:

Signature: **Date**:

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

PART- 2

CHECKLIST FOR GREEN BUILDING SUBMISSION [NOC-BCC]

Project Name:

S.NO	DOCUMENT DETAILS	ATTACHED (Yes / No)	REMARKS
1	Green Building Accreditation Program. Certificate / Proof of Registration should be attached with the submission		
2	A detailed Green Building Project Report explaining the strategies adopted in the process of compliance to the Regulation GB 6.0.		
3	Supporting documents for " Category A-General Requirements" as highlighted under the section "Evidence Required at Post Construction NOC-BCC" of Regulation GB-6		
4	Supporting documents for " Category B-Envelope & Energy" as highlighted under the section "Evidence Required at Post Construction NOC-BCC "of Regulation GB 6.0		
5	Supporting documents for "Category C-Lighting" as highlighted under the section "Evidence Required at Post Construction NOC-BCC "of Regulation GB 6.0		
6	Supporting documents for "Category D- Control Systems" as highlighted under the section "Evidence Required at Post Construction NOC-BCC " of Regulation GB 6.0		
7	Supporting documents for "Category E- Water" as highlighted under the section "Evidence Required at Post Construction NOC-BCC " of Regulation GB 6.0		
8	Supporting documents for "Category F- Environment & Internal Air Quality" as highlighted under the section "Evidence Required at Post Construction NOC-BCC" of Regulation GB 6.0		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

S.NO	DOCUMENT DETAILS	ATTACHED (Yes / No)	REMARKS
9	Supporting documents for "Category G- Sustainable Site" as highlighted under the section "Evidence Required at Post Construction NOC-BCC" of Regulation GB 6.0		
10	Supporting documents for "Category H- Operational Sustainability" as highlighted under the section "Evidence Required at Design Stage of Regulation GB 6.0		
11	Justification for Non Compliance to any specific credit (if any)		

Notes

1) The above check-list should be filled up in a professional manner devoid of inconsistencies
2) It should be ensured that ONLY the latest / most recent version of the forms as reflected in the portal are used for the submissions. Forms bearing the earlier revisions or those that have been superseded will not be accepted.

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

PART- 3

GREEN BUILDING COMPLIANCE STATEMENT [NOC- BCC]

Project Name:

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
A: General Requirements					
1	Integrated Design Approach for achieving energy savings	M	KEY stakeholders comprising all of but not limited to designers and builders should be a part of integrated design development process wherein important aspects such as ENERGY EFFICIENCY GOALS, COMMISSIONING SCOPE, EASE OF OPERATIONS & MAINTENANCE, etc. are deliberated. The process should include discussions on envelope, HVAC options, lighting schemes, innovative day lighting technologies benefits / costs, Renewable technologies, pay back periods etc as applicable for the project.		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
2	Post Contract Green Briefing. Sustainability Kick-off (During commencement of construction)	M	1) A detailed presentation is made on Sustainability (As applicable to this project), to all the stakeholders. 2) The presentation has to be a part of the Agenda during formal "Project Kick-off" meeting. 3) The key stakeholders should comprise ALL of but not restricted to the following: a) Civil and MEP contractors b) Project Architect and consultants c) Client representative d) Product and technology suppliers.		
B: Envelope and Energy					
1	Compliance with Thermal Insulation System and Best Practices Energy conservation methods for BOTH Air-conditioned and Non AC buildings.	M	All Warehouses should be designed to achieve the environmental parameters (U-values, Solar heat gain coefficients, etc.) for various components of the building Fabric/ Envelope as mentioned in Table-1 of the Annexure that is part of the Regulation.		
2	LIMITING / REVERSING THERMAL BRIDGES	M	1) All Insulating building components must be designed and installed to work in unison and create a continuous barrier to heat flow in the building envelope. The insulation should be reviewed in relation to a) Its location within the walls and Roofs		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			b) Its interface / connectivity with surrounding or penetration materials c) Connectivity within and between Insulating components.		
3	Envelope Tightness (Prescriptive based) THERMAL IMAGING TECHNIQUE	M	1) The envelope tightness should be ascertained by using combination of the following techniquesa) Visual Inspectionb) Thermal Imaging2) The defects in the building envelope should be rectified.NoteThe types of issues that are usually found are improperly insulated access panels, air leaks at room corners and around windows and door frames, missing or compacted wall insulation, air infiltration at lighting fixtures and a host of other energy-wasting defects		
4	Envelope Tightness (Performance based) BLOWER DOOR TEST TECHNIQUE	V	1) The envelope tightness should be ascertained by using combination of the following techniques a) Blower door testing 2) The building envelope should achieve the results as highlighted in the Table-2 of the Annexure for moderate Air tightness (between 5 and 10 ACH) at 50 pa		
5	Efficient SIZING of the HVAC systems	M	Heat load calculations should be carried out for all the conditioned areas of the building and the results of these calculations should be used as the basis for selecting the Air-conditioning equipment. Ventilation calculations should be carried out		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			for areas requiring ventilation and the results of such calculations should be used for sizing the ventilation equipment such as fresh air systems, exhaust systems , Energy Recovery Units etc.		
6	Central air conditioning units equipped with Energy Recovery Units and regulated air intake system (Where Applicable)	M	Heat recovery systems should be used in all combined supply & extract air handling units where applicable and found practical.		
7	Selection of A/C unit with HIGH Energy Efficiency Ratio (EER)	M	All Air Conditioning units should meet the minimum Energy Efficiency Ratio (EER) as mentioned in Table-3 of the Annexure. For those units that do not find mention in the table, the Energy Efficiency Ratio (EER) should be as set out in ASHRAE 90.2/ASHRAE 90.1 applicable for the project.		
8	Energy Efficient Auxiliary Systems of HVAC systems-Blowers and Pumps	M	The AHU, FAHU and other centrifugal fans proposed to be used for the project must be selected so as to have the lowest bhp/1000 cfm. The Pumps proposed to be used for the HVAC system must be selected for the highest efficiency		
9	INTERIOR LIGHTING LEVELS	M	The Interior lighting levels in the warehouse development should comply with the limits specified in the Table -4 in Annexure of the Regulation.For those units that do not find		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			mention in the table, the lighting levels specified should be at least 20% lesser than those levels prescribed in ASHRAE90.1 - 2007		
10	EXTERIOR LIGHTING LEVELS	M	The Exterior lighting levels in the warehouse development should comply with the limits specified in the Table -4 of the Annexure. For those units that do not find mention in the table, the lighting levels specified should be at least 20% lesser than those levels prescribed in ASHRAE90.1 - 2007		
11	Use of Renewable sources of energy for domestic heating	V	Solar water heating (Solar thermal) technology shall be employed for domestic hot water requirements. The solar hot water heating system must incorporate measures for efficient distribution system, pipe insulation and use of energy efficient electric hot water system normally used as backup.		
12	Use of Renewable sources of energy for power	V	Solar PV system shall be utilized to generate power and cater to select loads of the development such as external security lighting loads, security lamps and any other lighting requirements specific to the project. <u>Note</u> Where a building incorporates on-site generation of electricity from small or medium-scale embedded generators using renewable energy sources, the equipment, installation and maintenance of the system		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			must be standalone or off grid and not connected to the DEWA network unless approved in writing by DEWA..		
13	Energy Sub Metering	M	1) Separate metering facility i.e. check meters should be provided for the following types of loads: a) Air conditioning and Mechanical ventilation systems that include both the high side and low side mechanical and electrical equipment b) Lighting systems c) Small power systems (Preferable) 2) The individual meters should be easily accessible and distinctly labeled. 3) The meters should be capable of providing the required outputs and integration in case the proposed Warehouse development is provided with a BMS system. 4) It is preferable that the metering strategy is able to provide individual results for the warehouse and office to enable future benchmarking of these facilities effectively.		
14	COMMISSIONING	M	1) Comprehensive pre-commissioning, commissioning, and quality monitoring are contractually required to be performed in accordance with the ASHRAE Commissioning Guideline for mechanical services. The scope should include the following (at the minimum)		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			a) Air conditioning and mechanical ventilation system including Testing, Adjusting and Balancing of Air distribution system. b) Domestic water systems c) Renewable system d) Lighting system including the check of the lighting levels 2) A design intent report has to be developed in relation to point 1. 3)Training of building management/FM staff is provided and the design team and contractor transfer the project knowledge to the project owner/manager		
15	**FOR AIR-CONDITIONED SPACES MORE THAN 2000 SQ.M** BUILDING ENERGY SIMULATION <u>ENERGY MODELING</u>	M	1) The predicted Annual Energy Consumption / CO2 emissions are calculated from the design information using an appropriate modeling software package. The modeling software package must be capable of carrying the requirements as set out in ASHRAE / equivalent Standards 2) The Energy Modeling should be carried out by EHS prequalified Green Building GB consultant. 3) The results of the above are used in selecting the right equipment and envelope features.		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
16	**FOR AIR-CONDITIONED SPACES MORE THAN 2000 SQ.M** INDEPENDENT COMMISSIONING AGENT		The project should seek the services of an independent commissioning Agent to advise, monitor and verify the commissioning of the nominated building systems throughout the tendering, construction and commissioning phases.		
C: Lighting					
1	**Daylight Strategy** Use of Solar Day lighting Technologies	V	AS HIGHLIGHTED IN SECTION C1 OF THE REGULATION GB-8		
2	**Office Portion** Usage of energy saving high performance lamps	M	AS HIGHLIGHTED IN SECTION C2 OF THE REGULATION GB-8		
3	Usage of Electronic Ballast	M	AS HIGHLIGHTED IN SECTION C3 OF THE REGULATION GB-8		
4	**Warehouse Portion** Usage of energy saving high performance lamps	M	1) Use of Energy efficient technologies for Lighting requirements such as a) Fluorescent Lamp T5/T8/HO b) Light emitting diodes (LEDs) wherever possible. c) Others 2) A thorough Energy Analysis / study should be carried out in relation to a) Storage Criteria b) Products and		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			c) Inside temperature d) Lumen outputs, Efficacy, Color rendering index required for the space before arriving at the optimum lighting design. 3) The Project should adopt efficient lights systems with dedicated fittings to accommodate the above lamps.		
5	Usage of Electronic Ballast	M	All lighting ballasts should be electronic and NOT magnetic.		
D: Control Systems					
1	Use of programmable thermostats for HVAC system	M	All thermostats linked to air conditioning or comfort cooling systems should be fitted with timer controls at a minimum level. The programmable thermostat unit shall be installed on an interior wall, away from heating or cooling vents and other sources of heat or drafts (doorways, windows, skylights, direct sunlight or bright lamps) which may potentially influence their functioning.		
2	Control of External lights	M	Switching external lighting (or specific circuits of the lighting system as per the project needs) by using photocell sensors, motion control devices, occupancy sensors (if relevant to the project), timer/ devices or any other suitable means should be considered in the design.		
3	Interlock of Toilet / Bathroom fans	M	Switching & controlling of bathroom extract fans through the lighting switch / Timers/Sensors or synchronizing light		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			sensors as relevant for the project, with extract fans.		
4	Use of Occupancy Sensor / Motion Sensor for internal lighting devices	M	Switching lighting circuits of internal areas where applicable and relevant for the project, using occupancy sensors/motion sensors. The Occupancy sensors after due consideration shall be provided for the following areas a) Warehouse b) Dining Room c) Pantry d) Worker's changing room e) Prayer room f) Corridor / passage g) Ablution h) Corridor		
5	AUTOMATIC DAYLIGHT DIMMING CONTROLS (Warehouse areas > than 2000 m^2)	M	Indicate the spaces where automated day lighting controls are included, and verify these were modeled in the simulation program.		
E: Water					
1	Usage of Sewage Treatment Plant (STP) for treating Grey Water and reuse of treated water in flushing toilets and other usage not involving	V	The use of grey water for toilet flushing should be explored and if feasible considered.		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
	human direct contact.				
2	Performance Requirements for Sanitary fittings (Low Flow / Low Flush Fittings)	M	The FLOW and FLUSH fixtures used in the project should conform to the flow rates specified in the Table-5 of the Annexure.		
3	Water efficient landscaping and irrigation systemsDrip irrigation methods for vegetation according to climate and seasonal conditions.	M	1) All irrigation should be delivered by drip irrigation systems together with other strategies such as moisture sensors, landscape zoning, timers, controllers and self closing nozzles. 2) For those Warehouse developments where irrigation is proposed with sprinklers, a combination of high efficiency sprinkler with timer switch controls should be utilized. 3) Use of Native plants is encouraged		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
4	Water efficient landscaping and irrigation systems Eliminate potable water use or irrigation	V	The following demonstrates compliance: 1) The irrigation system specified for internal or external planting and/or landscaping uses ONLY the following a) captured Rain water b) Recycled waste water c) Non potable water treated by a public agency d) The only planting specified is restricted to species that thrive in hot and dry conditions. e)The system uses reclaimed condensate water from air conditioning systems f) combination of the above 2) Where a sub surface drip feed irrigation system or a system using reclaimed condensate water is installed for external areas, a facility or mechanism to prevent the irrigation system from activating during the day must be present.		
F: Environment and Internal Air Quality					
1	Building internal ventilation and Minimum Indoor Air Quality (IAQ)	M	Meet the minimum requirement of ASHRAE 62.1-2007, Ventilation for acceptable indoor air quality (IAQ) and design ventilation systems to meet /exceed the rates. Mechanical ventilation systems shall be designed using the Ventilation Rate Procedure or the applicable code whichever is stringent.		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			Naturally Ventilated buildings shall comply with ASHRAE 62.1 2007 STANDARDS.		
2	Control of Environmental Tobacco Smoke	M	The following demonstrates compliance: 1. There will be a smoking ban in place covering all public and staff only areas of the building. 2. No Smoking' signs should be located in appropriate areas, i.e. common areas, offices and building entrances so that they are clearly visible to all occupants. <u>OPTION-2</u> 3.Where smoking is permitted this should be in dedicated smoking rooms only with a ventilation rate of at least 32 liters per second per person. This must be achieved through mechanical means and the room must also be separated from all other occupied spaces by lobbies and serviced by separate ventilation systems to prevent re-circulation. Smoking rooms must be directly exhaust to the outdoors and must effectively contain, capture and remove ETS from building.		
3	Low Emitting Paints, Coatings, Adhesives and Sealants	M	All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) must comply with the requirements as mentioned in the Table-6 of the Annexure that has been aligned to LEED Reference		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
			Guide. All paints and coatings used in the project shall have Volatile organic compounds (VOCs) that are within the limits as prescribed in the Table-6 of the Annexure that has been aligned to LEED Reference Guide.		
4	Usage of Ozone friendly materials in Air Conditioning equipment, thermal insulation, foam & firefighting equipment.	M	CFCs should NOT be used in the project HVAC and Refrigeration systems should use Non-CFC refrigerants and must have Zero Ozone Depleting Potential (ODP) All thermal insulation and fire suppressants should have zero Ozone Depleting Potential (ODP) substances.		
1	Sustainable Site and Management	M	Provide erosion and sedimentation control plan to prevent 1) Loss of soil 2) Prevent air pollution from dust 3) Prevent sedimentation of storm sewer		
2	Heat Island Effect Non-Roof	M	The Site hardscape comprising the paving and parking sheds should incorporate one or more of the following strategies:1) Paving materials with Solar Reflective index (SRI) of minimum 29.2) Open Grid Paving system with 50% perviousness and /Or SRI of minimum 293) Parking spaces under cover with SRI of 29OPEN Grid Pavers for Non Traffic areas are encouraged.		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
3	Heat Island Effect Roof (Use of light and heat reflective colors on roofs)	M	Use roofing materials with SRI as mentioned under for minimum 75% of the roof area: a) Low slope 78 b) High slope 29		
H: Operational Sustainability					
1	Recycling facility - Storage and collection of Recyclables	M	Recycling facilities should be provided in each warehouse development. This should be in the form of a bin with at least three separate compartments, clearly labeled for recycling.		
2	Energy Efficient equipment (White Goods)	M	<u>Case 1:</u> Where white goods are provided as part of the project scope, they should be Energy Start / Equivalent Rated and should be applicable for a) Refrigerators b) Washing machines c) Driers d) Dish washers e) All other eligible equipment/goods <u>Case 2:</u> Where NO white goods / Appliances are provided as part of the project scope. A) Information on the Energy Start rating scheme / EU labeling scheme along with the list of goods complying with them should be provided to the client to facilitate informed procurement decisions.		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

ITEM	DESCRIPTION	TYPE	COMPLIANCE REQUIREMENT	COMPLIED Yes / No	LIST OF SUPPORTING DOCUMENTS ATTACHED.
3	Building user Guide	M	A Building / Facility Owner's Manual should be provided that include all of but not limited to the following: 1) A maintenance schedule for all installed mechanical equipment 2) Details of controls, interlocks and sequence of operations for the installed MEP systems 3) Details of internal and external recycling facilities 4) Guidance on the purchase of energy efficient lighting and appliances 5)Details of local public transport facilities		
4	Facility / Building Services Tuning	M	A Tuning report has of the essential building services of the facility comprising the HVAC, Renewable and Lighting systems and other systems if relevant has to be submitted after 12 months of the operations date		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

PART- 4

ENVELOPE COMMITMENT SHEET [NOC- BCC]

Project Name:

BUILDING ELEMENT	PARAMETER	REQUIREMENTS	ENVELOPE DATA (DESIGN) *	ENVELOPE DATA (AS-BUILT) **
Warehouse Structure (Non Conditioned) External Walls	U – value (Max)	0.08 Btu/hr-ft2-^{o}f 0.45 W/m2-^{o}c		
Warehouse Structure (Non Conditioned) Roof	U – value (Max)	0.074 Btu/hr-ft2-^{o}f 0.42 W/m2-^{o}c		
Warehouse Structure. (Air Conditioned) External Walls	U – value (Max)	0.055 Btu/hr-ft2-^{o}f 0.3123 W/m2-^{o}c		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

BUILDING ELEMENT	PARAMETER	REQUIREMENTS	ENVELOPE DATA (DESIGN) *	ENVELOPE DATA (AS-BUILT) **
Office Structure External Walls	U – value (Max)	0.050 Btu/hr-ft2-^{o}f 0.28 W/m2-^{o}c		
Roof	U – value (Max)	0.045 Btu/hr-ft2-^{o}f 0.2555W/m2-^{o}c		
Floors	U – value (Max)	0.1 Btu/hr-ft2-^{o}f 0.57 W/m2-^{o}c		
Fenestration	U – value (Max)	0.30 Btu/hr-ft2-^{o}f 1.7 W/m2-^{o}c		
	Shading Coefficient (Max) SHGC (Max)	0.29 0.252		
	VLT (Min)	25 %		

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

BUILDING ELEMENT	PARAMETER	REQUIREMENTS	ENVELOPE DATA (DESIGN) *	ENVELOPE DATA (AS-BUILT) **
Glass (for skylights architecture)	U – value (Max)	0.335 Btu/hr-ft2-^{o}f 1.9 W/m2-^{o}c		
	Shading Coefficient (Max) SHGC (Max)	0.20 0.174		
	VLT (Min)	40 %		

Notes

1. Columns under ***** indicates the values as committed by the client during "NOC-BP" submissions. It is imperative that these are followed in the construction.
2. Columns under ****** indicates the values as achieved at site in the process of construction.
3. The values provided in the table should be supported with calculations / catalogues and test reports where relevant to demonstrate compliance

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

PART- 5

AC SYSTEM COMPLIANCE SHEET [NOC- BCC]

Project Name:

S.No	Space / Area being Air-conditioned	Proposed System		EER as per Trakhees Regulation	EER COMMITTED *During Design*	EER INSTALLED *As Built*
		Cooling load (TR)	Air Quantity			
1						
2						
3						
4						
5						
6						
7						

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

Notes

1. The table should be followed for demonstrating compliance to
   a. B5 – Efficient Sizing of HVAC systems
   b. B7 - Selection of A/C unit with Energy Efficiency Ratio (EER)

2. This table is applicable to all conditioned areas including cases where a single AC unit is catering to multiple spaces and cases where a single space is being catered by multiple units

3. It should be ensured that ONLY the latest / most recent version of the forms as reflected in the portal are used for the submissions. Forms bearing the earlier revisions or those that have been superseded will not be accepted.

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

PART- 6

ENERGY STATEMENT / BUILDING SIMULATION [NOC-BCC]

Project Description :

Total Built-up area (m2) : **Conditioned Area (m2)** :

Energy Usage Intensity (Kwh/ m2) :

ENERGY Base Line Case			ENERGY Optimized Case (As a result of implementing Green building standards)			Estimated Energy Saving (KWhr)	Estimated On-site Renewable (KW hr)	ESTIMATED CO2e Emissions Offset (Annual) Metric Tons
Peak Load (KW)	Average Load (KW)	Energy Consumption (KWhr)	Peak Load (KW)	Average Load (KW)	Energy Consumption (KWhr)			

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001 دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae

Notes

1) This form is applicable for "Warehouse Projects" that require "Building Energy Simulation (Energy Modelling)". Please refer to Regulation for additional information.
2) This form shall be filled out by consultant based on the actual construction works and as reflected in the updated Building Energy Simulation / Energy Modelling.
3) The values indicated for Energy optimization should be as reflected in the Energy Modelling report for the base case and the proposed case scenarios taking into any revision to the inputs encountered during the project. It includes all of but not limited to the following
    a. Latest Indoor conditions
    b. Latest Occupancy
    c. Finalized Operations schedule
    d. Zoning as per as built layout
    e. Latest equipment schedule
    f. As built EER / COP of the Ac equipment
    g. As built Envelope / glazing/fenestration Thermal properties
    h. As built light power densities (LPD)
4) It should be ensured that ONLY the latest / most recent version of the forms as reflected in the portal are used for the submissions. Forms bearing the earlier revisions or those that have been superseded will not be accepted

info@pcfc.ae P.O. Box 2001, Dubai, U.A.E. | ص.ب. 2001، دبي، الإمارات العربية المتحدة Call Center 800 990 مركز الاتصال
@pcfc_dubai | www.pcfc.ae