

Appendix B
(PNAP APP- 151)

Declaration on Annual Energy Use of a Building Development

Part I: Building Particulars

- (a) Building name (if known): 15 Science Park West Avenue
- (b) Address of site : Hong Kong Science Park Phase 3, Pak Shek Kok, Tai Po, N.T.
- (c) Lot number : TPTL No. 204
- (d) Type of building * ~~Domestic Building~~ / Non – Domestic Building / ~~Composite Building~~
- (e) Provision of Central Air Conditioning *YES / ~~NO~~
- (f) Provision of Energy Efficient Features *YES / ~~NO~~
- (g) Please list the ~~proposed~~/installed* Energy Efficient Features (add separate sheet if necessary):-
1. Please refer to attached list of energy saving measures
 2. _____
 3. _____

Part II:

The predicted annual energy use[†] of the ~~proposed~~ / completed* building/~~part of building~~*:-

Type of Development	Location	Internal Floor Area Served (m ²)	Annual Energy Use of Baseline Building [†]		Annual Energy Use of Proposed/Completed* Building	
			Electricity kWh/m ² /annum	Town Gas/LPG unit/m ² /annum	Electricity kWh/m ² /annum	Town Gas/LPG unit/m ² /annum
Domestic Development	Central building services installation [§]					
Non-domestic Development**	Podium(s) (central building services installation)					
	Podium(s) (non - central building services installation)	2350.00	19.2		6.8	
	Tower(s) (central building services installation)	14250.00	264.14		190	
	Tower(s) (non - central building services installation)					

[†] The predicted annual energy use, in term of electricity consumption (kWh/m²/annum) and town gas/LPG consumption (unit/m²/annum), of the development by the internal floor area served, where:-

- (a) "total annual energy use" has the same meaning of "annual energy use" under Section 4 and Appendix 8 of the BEAM Plus for New Building (current version); and
- (b) "internal floor area", in relation a building, a space or a unit means the floor area of all enclosed space measured to the internal faces of enclosing external and/or party walls.

[‡] "Baseline Building" has the same meaning as "Baseline Building Model (zero-credit benchmark)" under Section 4 and Appendix 8 of the BEAM Plus for New Building (current version).

[§] 'Central Building Services Installation' has the same meaning as that in the Code of Practice for Energy Efficiency of Building Services Installations in Buildings (February 2010 edition)(Draft)

** Podium(s) normally means the lowest part of the development (usually the lowerest 15m of the development and its basement, if any) carrying different use(s) from that of the tower(s) above. For development without clear demarcation between podium(s) and tower(s), the development, as a whole, should be considered as tower(s).

Part III

The following installation(s) ~~are~~ / are ~~*designed~~ / completed in accordance with the relevant Codes of Practices published by the Electrical & Mechanical Services Department (EMSD):-

Type of Installations	YES	NO	N/A
Lighting Installations	X		
Air Conditioning Installations	X		
Electrical Installations	X		
Lift & Escalator Installations	X		
Performance-based Approach	X		

Please (x) where appropriate





Signature

(Registered Professional Engineer / Registered Energy Assessor)

Certificate of Registration No.: RP 0184497

Date of expiry of registration: 03/14

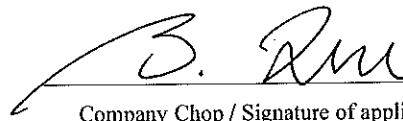


Signature

(Authorized Person)

Certificate of Registration No.: AP(A) 2081/73

Date of expiry of registration: 03/01/2016



Company Chop / Signature of applicant

Date: 6 DEC 2013



*Delete whichever is inapplicable

No. Sustainable Design Features	
<i>I. Reduce Loading / Demand - Passive design strategies</i>	
A. Sustainable Master Layout Plan	
1*	a. Optimized Disposition, Separation, Layout and Orientation of Buildings
2	b. Enhanced Air Ventilation near Pedestrian Zone / Landscape Deck/Communal Garden
3	c. Cycle Enabled Provisions (parking, shower and changing room)
B. Passive Design Features	
a. High Performance Façade:	
4*	(i) High Performance Double Low-e Glazing
5*	(ii) Optimized Window-wall Ratio to 40%
6*	(iii) External Shading Device
7*	(iv) Low Thermal Transmittance Wall
8*	b. High Solar Reflective Materials for Roof / Green Roof
9	(Not used)
10*	d. Optimized Natural Lighting and Courtyard
11	(Not used)
12	f. Use of Recycled and Regional Materials, where possible
13	g. Use of low pollutant Generating material (low VOC, Radon, Formaldehyde)
<i>II. Enhance Energy Efficiency – Active Design Strategies</i>	
A. Active Design Features	
a. HVAC	
14*	(i) Demand Control Ventilation using Carbon Dioxide Sensors
15*	(ii) Heat Recovery System
16*	(iii) Air-side Free Cooling
17*	(iv) Air Quality System
18*	(v) Efficient District Cooling System
19	(Not used)
20*	(vii) Thermal and Flow Meters to AHU / FCU to enable AC demand charging
b. Lighting	
21*	(i) Lowered Lighting Power Density to 300 lux
22*	(ii) Energy Saving luminaries including LEDs
23*	(iii) Daylight Sensors and Occupancy Sensors
24*	c. Lift - Group selective collective control
25*	d. Energy Meters and Management (FM)
26	e. Tenant Energy Usage Feedback System (Web, Apps)

*Energy saving features