

Building with Non-Central Air-Conditioning System	
Name of Building	
Address	
Contact Person	
Email	
Telephone No.	
Facsimile No.	
Tenant Mix*	

\* Please indicate all tenants of the building and the respective levels/areas that they occupy

#### Building Information (Whole Building)

Type of Building	Factory/ Hotel/ Office/ Mall/ Hospital/ Owned/ Leased ..... yrs		
Building Age (yrs)		Lettable Area (m <sup>2</sup> /ft <sup>2</sup> )	
No. of Storeys		Air Con Area (m <sup>2</sup> /ft <sup>2</sup> )*	
No. of Basements		GFA (m <sup>2</sup> /ft <sup>2</sup> )*	
Avg Occupancy (%)		Avg. no. of Occupants	

\* Please indicate the respective areas occupied by each tenant where possible

#### Energy Consumption (Whole Building)

Avg Monthly Electrical Consumption	kWh	
Avg Monthly Electrical Bill	S\$	
Avg Maximum Demand	kW	
Contracted Capacity	kW	
Incoming power supply voltage	V	66kv / 22kv / 6.6kv / 400v / others
Other energy sources	-	Gas / Diesel / Others _____

Note : Please include all typical sub-metering readings for each area (especially production areas) where possible

#### Water Consumption (Whole Building)

Avg Monthly Water Consumption	m <sup>3</sup>	
Avg Monthly Water Bill	S\$	

Note : Please include water consumption for each area where possible

#### Air Cooled or Water Cooled Packaged Units

Brand		Model		Qty		Cooling Capacity			
Years of use									
Areas Served									
Airflow rate (CFM)									
Type of Modulating Valves	On / Off / Modulating / 2-way / 3-way / Others : .....								
Type of Motor Drive	Belt / Direct / others								
Motor Brand		Model		Qty		Efficiency		kW	
Room temperature set point		°C		Room operating temperature		°C		%R	H

**Building with Non-Central Air-Conditioning System**



Average operating power consumption (kW)			
No. of units in operation		Operation Schedule	

**Variable Refrigerant Volume (VRV) Units**

Brand		Model		Qty		Cooling Capacity	
Years of use							
Areas Served							
Airflow rate (CFM)							
Type of Motor Drive	Belt / Direct / others						
Motor Brand		Model		Qty		Efficiency	kW
Room temperature set point	°C	Room operating temperature				°C	%RH
Average operating power consumption (kW)							
No. of FCUs in operation		Operation Schedule					

**Fan Coil Units (Split Units)**

Brand		Model		Qty		Cooling Capacity	
Type							
Years of use							
Areas Served							
Airflow rate (CFM)							
Type of Motor Drive	Belt / Direct / others						
Motor Brand		Model		Qty		Efficiency	kW
Room temperature set point	°C	Room operating temperature				°C	%RH
Average operating power consumption (kW)							
No. of FCUs in operation		Operation Schedule					

**Energy Management & Control System (EMCS)**

Any EMCS installed? If yes, please specify name	Yes / No / Specify .....
EMCS in operation?	Yes / No / Specify .....
Type of Flow meters	Magnetic / Vortex / Pedal wheel / others .....
Type of Temperature sensors	Pt100 / Pt500 / Pt1000 / 10k / 30k / Others.....
Power meters	Digital power meter / kw transducer / others.....
Any historical data logging? Interval?	Yes / No / ..... seconds / minutes / hours interval
If manually operated, please explain.	

Note : Please complete where applicable

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**Lighting Information**

<b><u>Offices</u></b>	
Floor area (m <sup>2</sup> )	
Type / quantity / power rating (kW)	
Operation schedule	
<b><u>Production Area</u></b>	
Floor area (m <sup>2</sup> )	
Type / quantity / power rating (kW)	
Operation schedule	
<b><u>Data Centres / Server Rooms</u></b>	
Floor area (m <sup>2</sup> )	
Type / quantity / power rating (kW)	
Operation schedule	
<b><u>Corridors/ lift lobbies / Reception</u></b>	
Floor area (m <sup>2</sup> )	
Type / Qty / Power rating (kW)	
Operation schedule	
<b><u>Warehouses</u></b>	
Floor area (m <sup>2</sup> )	
Type / Qty / Power rating (kW)	
Operation schedule	
<b><u>Staircases</u></b>	
Floor area (m <sup>2</sup> )	
Type / Qty / Power rating (kW)	
Operation schedule	
<b><u>Toilets</u></b>	
Floor area (m <sup>2</sup> )	
Type / Qty / Power rating (kW)	
Operation schedule	
<b><u>Carparks / Loading &amp; Unloading Bays</u></b>	
Floor area (m <sup>2</sup> )	
Type / Qty / Power rating (kW)	
Operation schedule	
<b><u>Building Perimeter (Wall lighting)</u></b>	
Floor area (m <sup>2</sup> )	
Type / Qty / Power rating (kW)	
Operation schedule	
<b>Others – floor area (m<sup>2</sup>)</b>	
Type / Qty / Power rating (kW)	

## Building with Non-Central Air-Conditioning System



### Additional Information

#### Equipment List & Operating Schedule

If the given formats are not applicable, not enough, or as in additional information, please provide separate *specifications, equipment lists, daily log sheets and operating schedule* of the equipment such as

1. Toilet exhaust system, car park supply & exhaust system
2. Air heaters for RH control
3. Domestic water system & Water fall system
4. Cold room & energy recovery system
5. hot water & boiler system
6. Vertical lift & escalator, etc.

#### Other Information needed

1. Please provide utility bills for past 3 years covering electricity, gas, fuel, oil and water.
2. Please advise the utility billing structure (i.e. billing to tenants, etc)
3. Please advise the production equipment consumption (kWh) where possible
4. Please highlight and advise all 24-hour operation areas
5. Please advise any fresh air intake for the building

#### Building Characteristics

<b>OTTV / ETTV / RTTV of the building</b>	:	/	/	w/m <sup>2</sup>
<b>Window glazing</b>	:	Single	/ Double	/ Clear / others
<b>Shading devices</b>	:	Blinds / Curtains / Others	Heat gain from Windows	w/m <sup>2</sup>
<b>Façade color</b>	:	Grey / White / Yellow / others	% of window area to wall area	%
<b>Roof coating / color</b>	:	Touch-on Membrane / White / Grey / Others .....		
<b>Adjacent buildings</b>	:	One / Two / Three sides / Others :		
<b>Height of nearby buildings</b>	:	Higher / Lower / About the same / Varies		

#### Please make available copies of the followings:

1. Architectural drawings and specifications, showing the plan & elevation of the building
2. Structural drawings and specifications
3. Mechanical & Electrical drawings especially single line electrical drawing, all ducting and piping schematics drawings & schedule of all equipment and specifications.

The above is necessary for the audit team to familiarize themselves with the buildings's configuration, M&E systems and equipment layout, operation and control.

#### Historical Maintenance / Services

Any upgrading / replacement / overhaul of equipment / building carried out? Please state when & what has been done.

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#### Historical Energy Conversation Measures (ECMs)

Any energy saving measures implementing or already implemented? Please state when & what ECMs were implemented, and investment figures, payback, problems encountered, objectives, etc.

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**Any change in operating hours / set points / demand? If yes, please indicate the specific dates and times:**

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