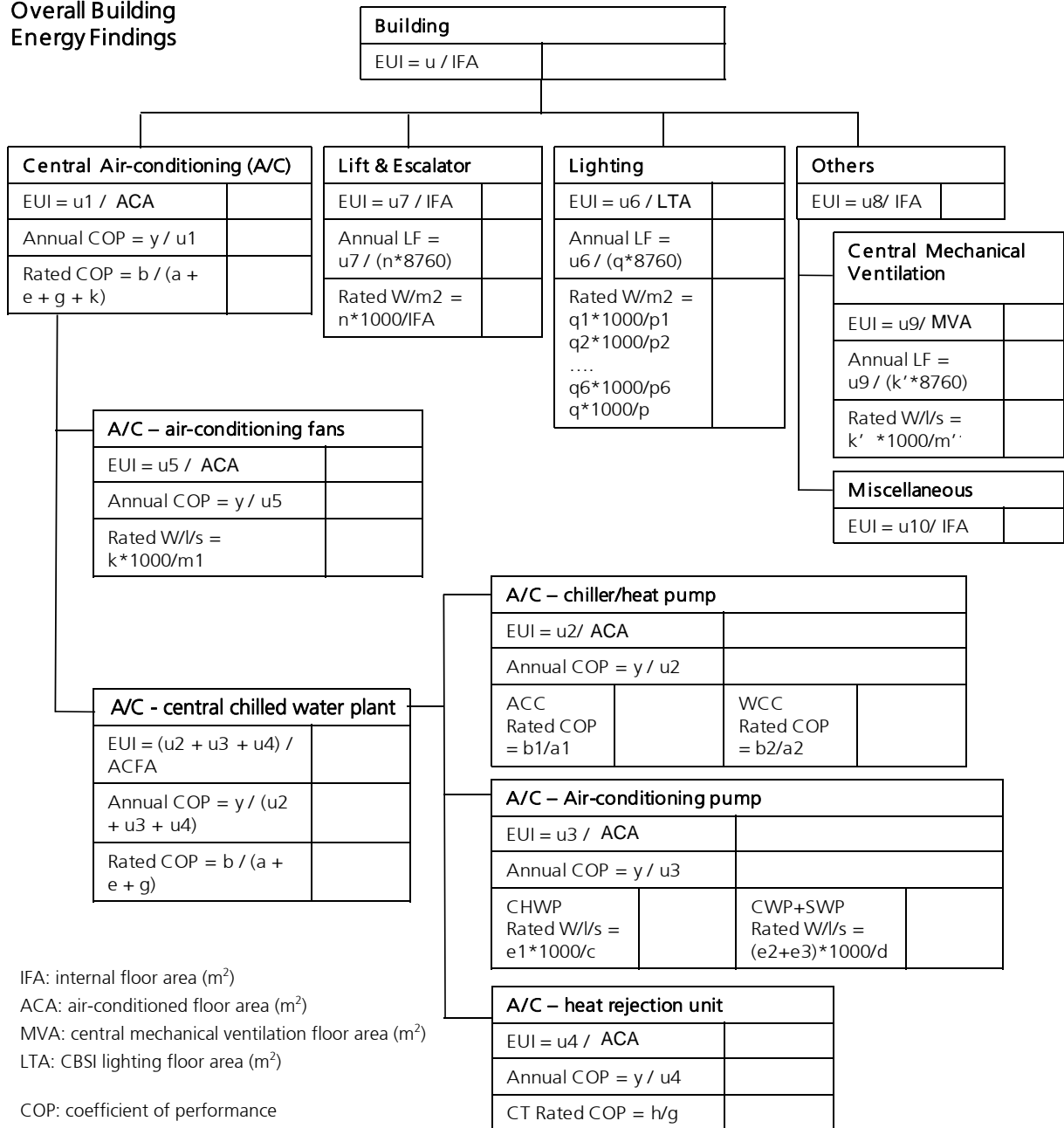


# Template 1 on Additional Information to Executive Summary of Energy Audit Report

The REA may use the following template to consolidate the findings in the energy audit report. The template is devised with reference to EAC clause 7.4.1 on evaluation and appraisal of energy consuming equipment/system, with focus on their energy performances. Clause 7.4.1.2 of the Technical Guidelines on EAC further gives the guidance on comparing of performances using performance indicators such as Watt per unit flow, Watt per unit area etc. The following chart in the template gives a summary of these performance indicators that may be useful in the evaluation and appraisal, and tables (I) to (X) that follow are for the input of the technical and operating characteristics based on which the performance indicators can be obtained. (EMSD encourages the use of this template, which is on voluntary basis, and its inclusion in the energy audit report is not a must.)

## Overall Building Energy Findings



<b>(I) Building Characteristics</b>	
1) Floor area	Total internal floor area of building entity (IFA) _____ m <sup>2</sup> [area figure in Form EE-EAes Part 1 (B) (I) 2] CBSI lighting area (LTA) _____ m <sup>2</sup> [area figure in Form EE-EAes Part 1 (B) (II) 3] Air-conditioned floor area (ACA) _____ m <sup>2</sup> [area figure in Form EE-EAes Part 1 (B) (I) 7] Central mechanical ventilation floor area (MVA) _____ m <sup>2</sup>
2) Provision of 24 hours chilled water for server room	<input type="checkbox"/> Yes <input type="checkbox"/> No
3) Provision of 24 hours air-conditioning for data centre, call centre and 24 hours finance office	_____ no. of floors

<b>(II) A/C – Chillers/Heat pumps (exclude standby chillers/heat pump)</b>						
Type of Chillers/Heat pumps	Rated Chiller/Heat pump Input Power (kW)	Rated Cooling Capacity (kW)	Rated Chilled water flow capacity (l/s)	Rated Condensing water flow capacity (l/s)	Operating hours (hrs/wk)	Quantity
Air-cooled chillers	a1)	b1)	c1)			
Water-cooled chillers	a2)	b2)	c2)	d2)		
Total	a)	b)	c)	d)		

<b>(III) A/C – Air-conditioning pumps (exclude standby pumps)</b>				
Type of Air-conditioning pumps	Rated Motor Power (kW)	Rated Flow Capacity (l/s)	Operating hours (hrs/wk)	Quantity
Chilled water pumps	e1)	f1)		
Condensing water pumps	e2)	f2)		
Seawater pumps	e3)	f3)		
Total	e)			

<b>(IV) A/C – Heat rejection units (exclude standby heat rejection units)</b>				
Type of Heat rejection units	Rated Motor Power (kW)	Rated Heat Rejection Capacity (kW)	Operating hours (hrs/wk)	Quantity
Cooling Towers				
Radiators				
Total	g)	h)		

<b>(V) A/C – Air-conditioning fans</b>				
<b>Type of Air-conditioning Fans</b>	<b>Rated Motor Power (kW)</b>	<b>Rated Air Flow Capacity (l/s)</b>	<b>Operating hours (hrs/wk)</b>	<b>Quantity</b>
AHUs (including FCUs)	k1)	m1)		
Primary air AHUs & Fresh air fans & Return air fans	k2)	m2)		
Total	k)			

<b>(VI) Central mechanical ventilation</b>				
<b>Served area of Mechanical Ventilation</b>	<b>Rated Motor Power (kW)</b>	<b>Rated Air Flow Capacity (l/s)</b>	<b>Operating hours (hrs/wk)</b>	<b>Quantity</b>
Carpark	k'1 )	m'1 )		
Toilet & pantry etc.	k3)	m3)		
Total	k')	m')		

<b>(VII) Lifts &amp; Escalators</b>				
<b>Type of Lifts &amp; Escalators</b>	<b>Service nature</b>	<b>Rated Motor power (kW)</b>	<b>Operating hours (hrs/week)</b>	<b>Quantity</b>
Traction/Hydraulic lifts	Passenger	n1)		
Traction/Hydraulic lifts	Freight	n2)		
Traction/Hydraulic lifts	Car park	n3)		
Escalators/Conveyors		n4)		
Total		n)		

<b>(VIII) Lighting</b>				
<b>Served area of Lighting</b>	<b>Floor area (m<sup>2</sup>)</b>	<b>Rated Luminaires Wattage (kW)</b>	<b>Operating hours (hrs/week)</b>	<b>Quantity</b>
Arcade/Atrium/Foyer	p1)	q1)		
Lift lobby & common corridor	p2)	q2)		
Back of house area	p3)	q3)		
Carpark	p4)	q4)		

Staircase	p5)	q5)		
Toilet	p6)	q6)		
Total	p)	q)		

<b>(IX) Measured/Estimated Annual electricity consumption breakdown</b>				
<b>Annual electricity consumption of past 1<sup>st</sup> 12-month period (kWh/annum)</b>	<b>Energy consumption (Econ)</b>	<b>Energy import (Eim)</b>	<b>Energy export (Eex)</b>	<b>Net Energy (Ene) Econ + Eim - Eex</b>
<b>Total central air-conditioning [ i + ii + iii + iv] or Total unitary air-conditioning</b>	r1)	s1)	t1)	u1)
i. Chillers/Heat pumps	r2)	s2)	t2)	u2)
ii. Air-conditioning pumps	r3)	s3)	t3)	u3)
iii. Heat Rejection Units	r4)	s4)	t4)	u4)
iv. Air-conditioning fans	r5)	s5)	t5)	u5)
<b>Total Lighting</b>	r6)	s6)	t6)	u6)
<b>Total lifts and escalators</b>	r7)	s7)	t7)	u7)
<b>Others [v + vi]</b>	r8)	s8)	t8)	u8)
v. Central Mechanical Ventilation	r9)	s9)	t9)	u9)
vi. Miscellaneous	r10)	s10)	t10)	u10)
<b>Total</b>	r)	s)	t)	u)
Remarks: Please refer to TG-EAC sections 4 and 8 for evaluation of energy import/export and suggested methodologies				

<b>(X) Measured/Estimated Annual thermal energy consumption of chiller plant</b>				
<b>Annual thermal energy consumption of chiller plant of past 1<sup>st</sup> 12-month period (kWh/annum)</b>	<b>Thermal Energy consumption (TEcon)</b>	<b>Thermal Energy import (TEim)</b>	<b>Thermal Energy export (TEex)</b>	<b>Net Thermal Energy (TEne) TEcon + TEim - TEex</b>
Total central chilled water plant	v)	w)	x)	y)
Remarks: Please refer to similar concept stipulated in TG-EAC sections 4 and 8 for evaluation of thermal energy import/export and suggested methodologies				