

EMSD's Energy Indicator & Benchmarking System

Energy Consumption Indicators for Offices, Commercial Uses

	Subgroups	Energy consumed per unit floor area per annum (MJ/m ² /annum)
Private Offices	Common services for buildings with central A/C for tenant	848
	Tenant units in buildings with central A/C supply	385
	Common services for building without central A/C supply (but with A/C in common area)	192.3
	Common services for buildings without central A/C supply (but without A/C in common area)	122.3
	Tenant units in buildings without central A/C supply	561
	Private Offices (whole building)	1132
Government Offices	Government Offices (whole building)	826.5
Shopping Centre	Common Services (with A/C in common area)	1301
	Common Services (without A/C in common area)	585.6
	Tenant units - Chinese Restaurants	7179
	Tenant units - non-Chinese Restaurants	5737
	Tenant units - fast food shops, bars and other eating and drinking places	7881
	Tenant units - supermarkets	5077
	Tenant units - general retail (food)	4929
	Tenant units - general retail (non-food)	1663
Standalone Restaurants and shops > 75m ²	Chinese restaurants	12022
	Non-chinese restaurants	9839
	Fast-food shops, bars and other eating and drinking places	6598
	Supermarkets	5853
	General retail (food)	4710
	General retail (non-food)	2373
	Hotels	1575
	Boarding Houses	796

APPENDIX B

Energy Consumption Indicators for Vehicles

Principal Group	Subgroups	Annual Average Consumption (Litres/100km)		
		HK	KLN	NT
Private Car	Engine Type			
	Engine Size <=1500cc	10.7	10.4	9.6
	Engine Size 1501-2000cc	12.2	12	10.8
	Engine Size 2001-2500cc	13.5	13.4	11.9
	Engine Size 2501-3000cc	15.2	15.2	13.3
	Engine Size >3000cc	17.7	17.9	15.3
Petrol Light Goods Vehicle		14.8		
Diesel Light Goods Vehicle	Gross Vehicle Weight < 2.50 Tonnes	10.2		
	Gross Vehicle Weight 2.51 - 4.00 Tonnes	12.2		
	Gross Vehicle Weight 4.01 - 5.50 Tonnes	18.6		
Medium Goods Vehicle (Tractor)	Gross Vehicle Weight 5.51 - 24.00 Tonnes	14.8		
Medium Goods Vehicle (Non-tractor)	Gross Vehicle Weight 5.51 - 10.00 Tonnes	31.9		
	Gross Vehicle Weight 10.01 - 15.00 Tonnes	34.3		
	Gross Vehicle Weight 15.01 - 20.00 Tonnes	44.3		
	Gross Vehicle Weight 20.01 - 24.00 Tonnes	54.1		
Heavy Goods Vehicles	Gross Vehicle Weight 24.01 - 38.00 Tonnes	61.1		
Private Light Buses		24.91		
Non-franchised Buses		36.65		

Source : EMSD Website: www.emsd.gov.hk/emsd/eng/pee/ecib_indicators.shtml

APPENDIX B

Example

Office “A” is located on the 12/F of a commercial building with a floor area of 2,000 m². The office has a centralized air-conditioning system. Total energy consumption in the period between August 2005 and July 2006 was 180,000 kWh. General office hours are from Monday to Friday, 9 am to 7pm. A total of 20 staffs work in the office and a total of 20 computers and 5 photocopiers are used.

Using the EMSD Benchmarking Tools

(www.emsd.gov.hk/emsd/eng/pee/benchmarktool.shtml), the annual energy consumption per area is estimated to be 310.3 MJ/m²/annum which is at the 40th percentile of the “Office” subgroup. The tool indicates that the energy consumption performance of Office “A” is good in comparison to the corresponding subgroup.

