

### Glossary

The purpose of this document is to provide glossary of groups, indicators and percentile under Residential, Commercial and Transport Sectors.

# **Residential Sector**

#### **Definition of Groups**

Principal Group (Data on energy consumption in relevant common areas has been split and categorised under Group C9.)	Sub-group	Definition
R1. Public Housing - Public Rental Flats	/	Housing Authority Rental Flat or Housing Society Rental Flat
	R21. Housing Society (HS) Subsidised Sale Flats	Housing Society Subsidised Sale Flat
R2. Private Housing	R22. Private Residential Flats	Private developed housing
	R23. Houses	Simple stone structures, traditional village houses villas, bungalows, modern village houses
R3. Housing Authority (HA) Subsidised Sale Flats	/	HA Home Ownership Scheme (HOS) flat

#### **Definition of Primary Indicators**

Indicator	Definition and Assumption
Annual Energy Consumption	Annual Energy Consumption (kWh/Annum)

#### **Definition of Secondary Indicators**

Indicator Category	Indicator	Definition
	Building Age	Building age is defined as the year to date after the building was commissioned for occupancy as required by Building Ordinance.
	Saleable Floor Area	Floor area in square meter contained within external edge of an enclosing wall or a centre line of a separating wall between two adjoining units.
	Member	Number of household members
	Bed Rooms	Number of bed rooms
	Total Rooms	Number of rooms that consume energy, including all types of rooms inside the living quarter.
Building and Environ- ment	Education	Education level of household head
ment	Monthly Household Income	Average monthly household income
	Facing West	Whether the living room has west facing window.
	Roof Floor	To determine whether the surveyed household is located on the roof floor.
	Self-Owned or Rental	To determine self-owned or rental status would have effects on the overall consumption of the living quarter.
	Housing Type	To determine whether type of housing would have effect on the overall consumption.
	Hot Water Equipment	Energy End-Use System in operation can be defined as:



Indicator Category	Indicator	Definition
	Air Conditioning Equipment	-Total Installed quantity for each type of End-Use in operation -Total Installed power for each type of End-Use in operation
	Refrigeration Equipment	-Weighted installed power intensity for each type of End-Use in operation
	Kitchen and Cooking Equipment	operation
Energy End- Use	Laundry Equipment	
System	Lighting Equipment	
	AV Equipment	
	Computing and Office Equipment	
	Other Equipment	
	Electricity Only	The premises uses only electricity
	Ventilation Fan	Number of electric ventilation fans in operation
Other Indicators	Window-type AC	Number of window type air conditioners in operation
	Split-type AC	Number of split-type air-conditioners in operation
	Stove – Towngas	Number of stove using fueled by Towngas in operation
	Computer	Number of notebook and computer in operation

## Definition of Percentile

Percentile	Definition
≤10th	Your energy performance is better than 90% of the premises under your subgroup. (i.e. you are at $\leq$ 10 th percentile of your subgroup)
11-20th	Your energy performance is better than 80% of the premises under your subgroup. (i.e. you are at 11-20th percentile of your subgroup)
21-30th	Your energy performance is better than 70% of the premises under your subgroup. (i.e. you are at 21-30th percentile of your subgroup)
31-40th	Your energy performance is better than 60% of the premises under your subgroup. (i.e. you are at 31-40th percentile of your subgroup)
41-50th	Your energy performance is better than 50% of the premises under your subgroup. (i.e. you are at 41-50th percentile of your subgroup)
51-60th	Your energy performance is better than 40% of the premises under your subgroup. (i.e. you are at 51-60th percentile of your subgroup)
61-70th	Your energy performance is better than 30% of the premises under your subgroup. (i.e. you are at 61-70th percentile of your subgroup)
71-80th	Your energy performance is better than 20% of the premises under your subgroup. (i.e. you are at 71-80th percentile of your subgroup)
81-90th	Your energy performance is better than 10% of the premises under your subgroup. (i.e. you are at 81-90th percentile of your subgroup)
>90th	Your energy performance is poorer than 90% of the premises under your subgroup. (i.e. you are at a percentile greater than 90th percentile of your subgroup)



**Commercial Sector** 

#### **Definition of Groups**

Principal Group	Sub-group	Definition
C1. Private	C11. Grade A Office	Premises classified as Grade A office are in accordance with the definitions of Rate and Valuation Department, which comprise premises situated in Grade A office buildings. Excluded are non-domestic floors in composite buildings.
	C12. Grade B Office	Premises classified as Grade B office are in accordance with the definitions of Rate and Valuation Department, which comprise premises situated in Grade B office buildings. Excluded are non-domestic floors in composite buildings.
Office (Data on energy consumption in relevant common areas has been	C13. Grade C Office	Premises classified as Grade C office are in accordance with the definitions of Rate and Valuation Department, which comprise premises situated in Grade C office buildings. Excluded are non-domestic floors in composite buildings.
split and categorised under Group C9.)	C14. Office in Industrial-Office Building	Office space in industrial-office building; Industrial-Office premises comprise premises designed or certified for industrial-office use.
	C15. Office in Flatted Factory Building	Office space in flatted factory building; Flatted Factories comprise premises designed for general manufacturing processes and uses (including off ices) directly related to such processes. Specialised factories and similar premises built by the Hong Kong Housing Authority are not included.
	C21. Chinese Restaurant	Guangdong, Beijing, Sichuan, Shanghai and other restaurants serving Chinese cuisines; and Hong Kong style tea cafés.
C2. Restaurant	C22. Non-Chinese Restaurant	Japanese, Korean, Thai, Vietnamese, and Western cuisine restaurants; coffee shops and other types of non-Chinese restaurants.
	C23. Fast Food Shops	Cafeterias, snack shops and other fast food shops
	C24. Bars	Bars and lounges serving snacks and drinks
	C25. Other Eating and Drinking Places	Herb tea shops, deserts, beverages serving places and other eating places
C3. Retail	C31. Specialised for Food, Beverage and Tobacco	Retail shops which involve food and drinks preparation, refrigeration and/or plumbing services such as baking of bread and pastry, cold drinks, ice-cream, snack preparation, fresh or frozen fishes/seafood/meat.
	C32. Specialised for Fuel	Include filling stations; retail sale of firewood, charcoal, coke and similar fuels; retail sale of kerosene and L.P. gas
	C33. Specialised for Information and Communication Equipment	Retail sale of information and communication equipment, computers, and peripheral units, and electrical appliances
	C34. Specialised for Cultural and Recreation Goods	Retail sale of books, newspapers and stationery, music and video recordings, sporting equipment, games and toys
	C35. Specialised for Other Household Equipment	Retail sale of textiles, hardware, metalware, paints, other building renovation materials, carpets, rugs, wall, floor coverings, electrical household appliances, furniture and other household articles
	C36. Specialised for Other Goods	Retail sale of clothing, footwear, leather articles, pharmaceutical, medical, health goods, cosmetics, personal care products, motor



Principal Group	Sub-group	Definition
		vehicles, motorcycles, other transport equipment, new goods and second-hand goods
	C37. Non-specialised	Retail sale in general merchandise with food and beverages predominating and others in non-specialised stores
	C41. Hotels	Those premises classified as hotels in accordance with Hong Kong Standard Industrial Classification (HSIC) v2.0 Code 5501. Outdoor gardening area and car-park area are excluded in the calculation of the internal floor area of the premises. Restaurants and other food and drinks serving places, retail shops which are rented out and operated under a separate business license should be excluded.
	C42. Guest Houses	Those premises classified as guest houses in accordance with HSIC v2.0 Code 5509. Outdoor gardening area and car-park area are excluded in the calculation of the internal floor area of the premises.
C4. Accom- modations	C43. Home for the Aged	"Home for the Aged" shall include nursing home, caring and attention home, home for the aged, hostel for the elderly. The "Home" shall provide residence places; Hence day care centres are NOT included.
	C44. Residential Care (for Person With Disabilities)	Those premises classified as residential care centres in accordance with HSIC v2.0 Code 8740, covering residential care activities for persons with disabilities. Residence places shall be provided.
	C45. Residential Care (Others)	Those premises classified as residential care centres in accordance with HSIC v2.0 Code 8790, covering residential care activities (nursery, children's home, unmarried mothers' hostel, etc) other than residential care activities for persons with disabilities. Residence places shall be provided.
	C51. Hospitals	Those premises classified as hospitals in accordance with HSIC v2.0 Code 8611, but not include 8612, covering government and private hospitals. Outdoor gardening area and car-park area excluded in the calculation of the internal floor area of the premises.
	C52. Government Clinics	Specialist Out-patient Clinics and General Out-patient Clinics managed by Hospital Authority.
C5. Hospitals and Clinics	C53. Private Clinics, Medical Practitioner's Offices	Those premises classified as clinics in accordance with HSIC v2.0 8621, but not include 8692 and 861. Outdoor gardening area and car-park area are excluded in the calculation of the internal floor area of the premises.
	C54. Private Dental Clinics	Those premises classified as private dental clinics in accordance with HSIC v2.0 8623.
	C55. Chinese Medicine Practitioners	Clinics operated mainly by registered Chinese Medicine Practitioners. Those practicing at home or attached to medical product stores or other human health related organizations are excluded.
	C56. Medical and X-Ray Laboratories	Those premises classified as medical laboratories in accordance with HSIC v2.0 8691.
C6. Educational Services	C61. Universities / Colleges	The premises cover all buildings belong to universities/colleges including the library buildings, academic buildings, sport complexes and the quarter buildings of the universities. Outdoor



Principal Group	Sub-group	Definition
		area is excluded in the calculation of the internal floor area of the premises.
	C62. Adult Education / Tutorial / Vocational Schools	Those premises including private schools offering a variety of subjects including commercial classes. The premises cover all buildings including the library buildings, academic buildings, sport complexes and the quarter buildings. Outdoor area is excluded in the calculation of the internal floor area of the premise.
	C63. Secondary Schools	Those premises classified as secondary schools. The premises cover all buildings including the library buildings, academic buildings and sport complexes. Outdoor gardening, playground and car-park area are excluded in the calculation of the internal floor area of the premises.
	C64. Primary Schools	Those premises classified as primary schools. The premises cover all buildings including the library buildings, academic buildings and sport complexes. Outdoor gardening, playground and car-park area are excluded in the calculation of the internal floor area of the premises.
	C65. Kindergarten	Kindergartens shall include both "local" and "international" kindergartens and kindergarten-cum-child care centres.
	C66. Special Education School	A school that provides education for pupils through a special education curriculum and that has been approved by the Permanent Secretary for Education for such purpose.
	C67. Performing Arts Schools	Schools that provide education for providing training on multiple cultural items except academic.
	C71. Refrigerated Warehouse	Cold storage in accordance with HSIC v2.0 5211.
C7. Warehouse	C72. Non-Refrigerated Warehouse	General cargo warehouses, packing and crating services in accordance with HSIC v2.0 5212.
	C81. Tele-communications Network Operation and Other Activities	Telecommunications in accordance with HSIC v2.0 6110, 6191 and 6199. This group covers telecommunications network operation, internet access services and other telecommunications activities.
	C82. Real Estate Brokerage and Agency	Real estate brokerage and agency in accordance with HSIC v2.0 6821.
	C83. Veterinary Activities	Include testing of animal specimens, veterinarians in private practice and veterinary services, in accordance with HSIC v2.0 7300.
C8. Personal Services	C84. Care and Training Services for Pets and Animals	Care and training services for pets and animals in accordance with HSIC v2.0 9607.
	C85. Laundry and Dry-cleaning Services	Laundry and Dry-cleaning Services in accordance with HSIC v2.0 9601.
	C86. Repairing of Computers and Communication Equipment	Repair of computers, peripheral equipment and communications equipment, in accordance with HSIC v2.0 9521 and 9522.
	C87. Repairing of Personal and Household Goods	Repair of audio products, visual electronic products, household appliances, home equipment, garden equipment, footwear goods, leather goods, furniture, home furnishings, watches, clocks, jewellery and other personal and household goods include locksmith services, in accordance with HSIC v2.0 9531, 9532, 9533, 9534, 9535, 9536, 9537 and 9539.



Principal Group	Sub-group	Definition
	C88. Repairing of Motor Vehicles and Motorcycles	Repairing of Motor Vehicles and Motorcycles in accordance with HSIC v2.0 9510.
	C89. Beauty and Body Prettifying Services	Beauty and body prettifying treatment in accordance with HSIC v2.0 9602. This group covers hairdressing treatment, made-up, skin and facial care services, weight control and slimming services and other related services.
	C810. Travel Agency	Travel agency activities, in accordance with HSIC v2.0 7910.
	C811. Sports Activities	Sports activities in accordance with HSIC v2.0 931101, 931102, 931104, 931105, 931106 and 931200, covering billiard centres, bowling centres, golf centres, gymnasium and fitness centres, skating centres and activities of sports clubs.
	C812. Other Sports Activities	Other sports activities in accordance with HSIC v2.0 9319
	C813. Domestic Banking	Licensed banks, restricted licensed banks and deposit-taking companies, in accordance with HSIC v2.0 6412.
	C814. Photographic Activities	Photography, photo printing and photo finishing services, in accordance with HSIC v2.0 7521 and 7522.
	C815. Motion Picture Projection Activities	Cinema management offices, cinema operation and movie theatre operation, in accordance with HSIC v2.0 5914.
	C816. Creative and Performing Art Activities	Performing arts, creative artists, musicians and writers, and performing arts venue operation, in accordance with HSIC v2.0 9010, 9020 and 9030.
	C817. Pawnshops	Pawnshops, in accordance with HSIC v2.0 649201.
	C818. Money Changers and Foreign Exchange Brokers or Dealers	Money changers and foreign currencies exchange brokers, in accordance with HSIC v2.0 649901.
	C819. Courier Services	Pickup, sorting, transport and delivery (domestic or international) of mail and parcels, in accordance with HSIC v2.0 5321 and 5322.
	C820. Renting of Personal and Household Items	Renting of personal and household goods as well as renting of recreational and sports goods, video tapes and discs, other personal and household goods, in accordance with HSIC v2.0 7721, 7722 and 7729. Activities generally include short-term rental of goods.
	C821. Other Entertainment Activities	Amusement game centres, betting activities, night clubs and dance halls, karaoke and discotheques, in accordance with HSIC v2.0 9391, 9392, 9393, 9394 and 9395.
	C822. Specialised Design Activities	Interior and furniture design, multi-media/visual and graphic design, fashion design services, industrial design, and other design activities, in accordance with HSIC v2.0 7511, 7512, 7513, 7514 and 7519.
	C823. Funeral and Related Activities	Funeral and related activities in accordance with HSIC v2.0 9608.
	C91. Common Areas of Grade A Office Premises	Common areas in Grade A office buildings as classified according to the definition by the Rating and Valuation Department.
C9. Premises – Common Area	C92. Common Areas of Grade B Office Premises	Common areas in Grade B office buildings as classified according to the definition by the Rating and Valuation Department
	C93. Common Areas of Grade C Office Premises	Common areas in Grade C office buildings as classified according to the definition by the Rating and Valuation Department



Principal Group	Sub-group	Definition
	C94. Common Areas of Industrial-Office Premises	Common Areas of Industrial-Office Premises; Industrial-Office premises comprise premises designed or certified for Industrial-Office use.
	C95. Common Areas of Flatted Factory Premises	Common Areas of Flatted Factory Premises; Flatted Factories comprise premises designed for general manufacturing processes and uses (including off ices) directly related to such processes. Specialised factories and similar premises built by the Hong Kong Housing Authority are not included.
	C96. Common Areas of Commercial Complex/Shopping Arcades	Common Areas of Commercial Complex/Shopping Arcades; Commercial Complex/Shopping Arcades include retail premises and other premises designed or adapted for commercial use, with the exception of purpose-built offices. Car parking space is excluded.
	C97. Common Areas of Non- Public Housing	Common Areas of Non-Public Housing; Buildings designed or adapted for Non-Public Housing use, including private residential buildings and HS subsidised sale flats.
	C98. Common Areas of Public Housing	Common Areas of Public Housing; Buildings designed or adapted for Public Housing use, including public rental housing and HA subsidised sale flats.
C10. Government Office Building		Applicable to entire office buildings occupied by one or more government bureaus and/or department users.

## **Definition of Primary Indicators**

Description	Definition
Annual Energy Consumption	Annual Energy Consumption (kWh/Annum)

## **Definition of Secondary Indicator**

Indicator Category	Indicator	Definition
	Internal floor area	Floor area of all enclosed spaces measured to the internal faces of enclosing external and/or party walls in square meter.
	Building Internal Floor Area	Building internal floor area in square meter
	Building Age	Building age is defined as the year to date after the building was commissioned for occupancy as required by Building Ordinance.
	Weather	Ambient temperature value
Building and Environ- ment	Operation Schedule	<ul> <li>Hours of operation per annum</li> <li>For campus buildings and hospital complexes which may have different building operation schedules, the summation of weighted average of the operation hours of its building area to total building area will be adopted.</li> <li>The average weekly operation hours (i.e. from Mon. – Sun) and public holiday operation hours of the concerned premises would be accounted for.</li> </ul>
	Occupancy	Occupancy rate of guest rooms (for hotels and boarding houses), seats (for restaurants), beds (for hospitals), number of students and



Indicator Category	Indicator	Definition
		staffs (for education services), number of patients per annum (for hospitals and clinics).
	Occupants Behavior, Operation and Maintenance Factor	Subjective scoring of occupant's behavior, operation and maintenance factor based on the frequency of maintenance and check-up for lighting, central plant AC and packaged AC. The shorter the length is, the higher the score will be assigned to the premises.
	Central AC	Whether central air-conditioning equipment is available and its energy consumption is included in the energy bill of the survey subject.
	Temperature Set Point	Indoor temperature set point refers to the average indoor temperature set point for the surveyed premises.
	Operating Year	Year of operation in the current premises
	Block	Number of blocks
	Floor	Number of floors
	Building Type	Type of building: Special Purpose, Shopping Arcade, Office, Village House / Villas, Mixed: Commercial / Residential, Residential, Mixed: Commercial/Industrial and Others
	Facilities	Type of facilities in the building, such as clubhouse, swimming pool.
	Hot Water Equipment	
	Air Conditioning Equipment	
	Refrigeration Equipment	
	Air Side Equipment	
	Other Space Conditioning Equipment	
	Kitchen and Cooking Equipment	
	Laundry Equipment	Energy End-Use System in operation can be defined as:
Energy End- Use System	Major Cooking Equipment	<ul> <li>Total Installed quantity for each type of End-Use in operation</li> <li>Total Installed power for each type of End-Use in operation</li> </ul>
	Lighting Equipment	<ul> <li>Weighted installed power intensity for each type of End-</li> </ul>
	Computing and Office Equipment	Use in operation
	Pumping Drainage System	
	Plumbing Equipment	
	Vertical Transport Equipment	
	Motor/ Generator	
	Medical Equipment	
	Miscellaneous Equipment	
	Ownership	Type of ownership: self-owned, rented, Government owned
Other Indicators	Electricity Only	The premises uses only electricity
	Hotel Rating	Applicable for hotels only; Number of stars awarded to Hotel
	Rent-out Rate	Average rent out rate of guest rooms per annum



Indicator Category	Indicator	Definition
	Private hospital	Private hospital or not
	Accident and emergency service	Hospital with accident and emergency service or not
	Wards	Number of wards in Hospitals or Clinics
	Beds / Rooms / Seats / Classrooms	Number of beds in Home for the Aged, Residential Care, and Hospitals; number of rooms in Hotels, Guest Houses, Private Dental Clinics, Medical & X-Ray Laboratories, and Special Education School; number of seats in Restaurant; number of classroom in Secondary Schools.
	Cold Storage Area	Area used for Cold Storage
	Storage Area	Proportion of internal floor area used for store room and warehousing
	Energy consuming activities	Availability of energy consuming activities (e,g, packaging and re- packaging, small workshop operations, testing, small cold storage inside non- Cold Storage premises)
	Computers	Number of computers in operation
	Person	Number of employees, guests, patients, students, etc.
	School Type	Type of School: Government school, Government aided school, School aided by non-profit-making organization, Private/ Direct subsidy scheme school
	University	University or not
	Business Nature	Nature of business of the survey subject: Trading, Business Services, Finance, IT, Publishing, Telecom, Engineering/Construction, Manufacturing, Logistics, Others
	Street Front	Entrance facing street front
	Air Cooled Central AC	Number of Air Cooled Central Air-Conditioning Equipment in operation
	Chiller of Water Cooled Central AC	Number of Chiller of Water Cooled Central Air-Conditioning Equipment in operation
	Chiller of Air Cooled or Water Cooled Central AC	Number of Chiller of Air Cooled or Water Cooled Central Air- Conditioning Equipment in operation
	Domestic AC	Number of window-type and split-type air-conditioners in operation
	Split-type AC	Number of split-type air-conditioners in operation
	Ventilation Fan	Number of electric and ventilation fans in operation
	Commercial Cooling Equipment	Number of commercial freezers / refrigerators in operation
	Domestic Cooling Equipment	Number of domestic freezers / refrigerators in operation



#### **Definition of Percentile**

Percentile	Definition
≤10th	Your energy performance is better than 90% of the premises under your subgroup. (i.e. you are at a percentile smaller than 11th percentile of your subgroup)
11-20th	Your energy performance is better than 80% of the premises under your subgroup. (i.e. you are at 11-20th percentile of your subgroup)
21-30th	Your energy performance is better than 70% of the premises under your subgroup. (i.e. you are at 21-30th percentile of your subgroup)
31-40th	Your energy performance is better than 60% of the premises under your subgroup. (i.e. you are at 31-40th percentile of your subgroup)
41-50th	Your energy performance is better than 50% of the premises under your subgroup. (i.e. you are at 41-50th percentile of your subgroup)
51-60th	Your energy performance is better than 40% of the premises under your subgroup. (i.e. you are at 51-60th percentile of your subgroup)
61-70th	Your energy performance is better than 30% of the premises under your subgroup. (i.e. you are at 61-70th percentile of your subgroup)
71-80th	Your energy performance is better than 20% of the premises under your subgroup. (i.e. you are at 71-80th percentile of your subgroup)
81-90th	Your energy performance is better than 10% of the premises under your subgroup. (i.e. you are at 81-90th percentile of your subgroup)
>90th	Your energy performance is poorer than 90% of the premises under your subgroup. (i.e. you are at a percentile greater than 90th percentile of your subgroup)

## 機電工程署 ENERGY CONSUMPTION EMSD INDICATORS AND BENCHMARKS

**Transport Sector** 

## **Definition of Groups**

Principal Group	Sub-group	Definition
V1. Motorcycle (Petrol)	/	Petrol motorcycles
	V21. Engine Size ≤ 1,000cc (Petrol)	Petrol private cars of engine size less than or equal to 1,000 c.c.
	V22. Engine Size 1,001 – 1,500cc (Petrol)	Petrol private cars of engine size in the range of 1,001 $-$ 1,500 c.c.
	V23. Engine Size 1,501 – 2,500cc (Petrol)	Petrol private cars of engine size in the range of 1,501 $-$ 2,500 c.c.
V2. Private Cars	V24. Engine Size 2,501 – 3,500cc (Petrol)	Petrol private cars of engine size in the range of 2,501 $-$ 3,500 c.c.
	V25. Engine Size 3,501 – 4,500cc (Petrol)	Petrol private cars of engine size in the range of 3,501 $-$ 4,500 c.c.
	V26. Engine Size > 4,500cc (Petrol)	Petrol private cars of engine size greater than 4,500 c.c.
	V27. Private Cars (Diesel)	Diesel private cars
	V28. Electric Vehicles	Private cars powered by electricity
	V29.Hybrid Vehicles	Private cars use by two or more distinct types of power
V3. Private Buses	V31. Private Buses (Single Deck) Non-franchised	Diesel single deck private buses, non-franchised
(Diesel)	V32. Private Buses (Double Deck) Non-franchised	Diesel double deck private buses, non-franchised
V4. Public Buses	V41. Public Buses (Single Deck) Non-franchised	Diesel single deck public buses, non-franchised
(Diesel)	V42. Public Buses (Double Deck) Non-franchised	Diesel double deck public buses, non-franchised
V5. Private Light	V51. Private Light Buses (Diesel)	Diesel private light bus has a carrying capacity (including driver) not exceeding 17 seats
Buses	V52. Private Light Buses (LPG)	LPG private light bus has a carrying capacity (including driver) not exceeding 17 seats
V6. Public Light	V61. Public Light Buses (Diesel)	Diesel public light bus has a carrying capacity (including driver) of 17 seats. It includes red minibus and minibus
Buses	V62. Public Light Buses (LPG)	LPG public light bus has a carrying capacity (including driver) of 17 seats. It includes red minibus and green minibus
	V71. Taxi (Urban)	LPG Taxi in Urban Area
V7. Taxis (LPG)	V72. Taxi (NT)	LPG Taxi in New Territories
	V73. Taxi (Lantau Island)	LPG Taxi in Lantau Island
V8. Light Goods Vehicles (Petrol)	/	Petrol light goods vehicles
V9. Light Goods Vehicles (Diesel)	V91. Gross Vehicle Weight ≤ 2.50 Tonnes	Diesel light goods vehicles of gross vehicle weight less than or equal to 2.50 Tonnes
	V92. Gross Vehicle Weight 2.51 – 4.00 Tonnes	Diesel light goods vehicles of gross vehicle weight in the range of 2.51 – 4.00 Tonnes
	V93. Gross Vehicle Weight 4.01 – 5.50 Tonnes	Diesel light goods vehicles of gross vehicle weight in the range of 4.01 – 5.50 Tonnes
V10. Medium Goods Vehicles (Diesel)	V101. Tractors (5.51 – 24.00 Tonnes)	Diesel tractor type medium goods vehicles of gross vehicle weight in the range of $5.51 - 24.00$ Tonnes

#### 機電工程署 ENERGY CONSUMPTION EMSD ENCLOSE AND BENCHMARKS

Principal Group	Sub-group	Definition
	V102. Non-tractors (5.51 – 10.00 Tonnes)	Diesel non-tractor type medium goods vehicles of gross vehicle weight in the range of 5.51 – 10.00 Tonnes
	V103. Non-tractors (10.01 – 15.00 Tonnes)	Diesel non-tractor type medium goods vehicles of gross vehicle weight in the range of 10.01 – 15.00 Tonnes
	V104. Non-tractors (15.01 – 20.00 Tonnes)	Diesel non-tractor type medium goods vehicles of gross vehicle weight in the range of 15.01 – 20.00 Tonnes
	V105. Non-tractors (20.01 – 24.00 Tonnes)	Diesel non-tractor type medium goods vehicles of gross vehicle weight in the range of 20.01 – 24 Tonnes
V11. Heavy Goods Vehicles (Diesel)	/	Diesel Heavy Goods Vehicles of gross vehicle weight in the range of 24.01 - 38.00 Tonnes

## **Definition of Primary Indicators**

Indicator	Definition
Litre/100 km or kWh/100 km	Average fuel consumed or average electricity consumed to undertake a number of journeys of a total distance measured by kilometre (fuel consumption / distance travelled or electricity consumption / distance travelled)

# **Definition of Secondary Indicators**

Indicator	Definition
Engine Size	Engine sizes in cc
Battery Capacity	Battery capacity of electric vehicle in kWh
Vehicle Age	Number of year (year of benchmark leaves year manufactured)
Arrangement of Cylinders	Engine design - arrangement of cylinders: Three indicator variables for the four arrangements, vertical, V-shape, W-shape and horizontally opposed
Number of Cylinder	Engine design – number of cylinders: ranged from 1 to 16 cylinders
Transmission	Two indicator variables for the three transmission types, manual, automatic or semi-automatic
Gross Vehicle Weight	Gross vehicle weight in Tonnes
Maximum Number of Passengers	Maximum capacity of the vehicle in terms of number of passengers (number of passengers including the driver)
Average Number of Passengers	Average number of passengers (number of passengers including the driver)
Average Vehicle Loading	Average vehicle loading weight in Tonnes
Type of goods mainly carried	Whether the vehicles mainly carry light goods (such as parcel and document), heavy goods (such as construction waste and metals), refrigerated goods or chemical and dangerous goods.
Average Monthly Temperature	Average monthly temperature between two tank fillings. Temperature information is obtained from the Hong Kong Observatory.
Average Travelling Distance	Average travelling distance per month
Average number of days per month that vehicle in use	Average number of days per month that the vehicle is in use
Average number of trips per month of the vehicle	Average number of trips per month of the vehicle
Travelling Proportion in Hong Kong Island	Travelling proportion (%) of the vehicle in Hong Kong Island during the past 12 months
Travelling Proportion in Kowloon	Travelling proportion (%) of the vehicle in Kowloon during the past 12 months



Indicator	Definition
Travelling Proportion in New Territories and Outlying Islands	Travelling proportion (%) of the vehicle in New Territories and Outlying Islands during the past 12 months
Travelling Proportion in the Mainland of China	Travelling proportion (%) of the vehicle in the Mainland of China during the past 12 months
Hong Kong Refuel Proportion	Proportion (%) of fuel refilled in Hong Kong
Regular Check-up	Whether the vehicle is subject to regular checkup.
Air Conditioning	Whether the vehicle has an air conditioning unit.
Operation Proportion of Air Conditioning	Proportion (%) of operation time with air-conditioning on to total travelling time
Travelling Proportion on Highway	Travelling proportion (%) of the vehicle on highway
Ownership	Whether the vehicle is owned by a company or privately owned.

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≤10th	Your energy performance is better than 90% of the premises under your subgroup. (i.e. you are at a percentile smaller than 11th percentile of your subgroup)
11-20th	Your energy performance is better than 80% of the premises under your subgroup. (i.e. you are at 11-20th percentile of your subgroup)
21-30th	Your energy performance is better than 70% of the premises under your subgroup. (i.e. you are at 21-30th percentile of your subgroup)
31-40th	Your energy performance is better than 60% of the premises under your subgroup. (i.e. you are at 31-40th percentile of your subgroup)
41-50th	Your energy performance is better than 50% of the premises under your subgroup. (i.e. you are at 41-50th percentile of your subgroup)
51-60th	Your energy performance is better than 40% of the premises under your subgroup. (i.e. you are at 51-60th percentile of your subgroup)
61-70th	Your energy performance is better than 30% of the premises under your subgroup. (i.e. you are at 61-70th percentile of your subgroup)
71-80th	Your energy performance is better than 20% of the premises under your subgroup. (i.e. you are at 71-80th percentile of your subgroup)
81-90th	Your energy performance is better than 10% of the premises under your subgroup. (i.e. you are at 81-90th percentile of your subgroup)
>90th	Your energy performance is poorer than 90% of the premises under your subgroup. (i.e. you are at a percentile greater than 90th percentile of your subgroup)