

Pledge and Review Report: Hong Kong, China

Energy Consumption Indicators and Benchmarks

In order to provide an information base for the formulation and evaluation of energy efficiency policies, an Energy End-use Database is being maintained, which contains energy end-use data encompassing the whole territory of Hong Kong. Currently, the Energy End-use Database contains data from the years 1984 to 1999, and is being updated on an annual basis.

In order to obtain more in-depth field data on energy consumption levels and the extent of use of energy-efficient equipment, to facilitate operators and users to rate their own performance, and to enable the setting of future targets and implementation of measures to reduce energy consumption, a consultancy study is under way to develop energy consumption indicators and benchmarks for major energy-consuming groups in Hong Kong.

Purposes of the Indicators and Benchmarks

The indicators and benchmarks shall enable the Government to:

- track their changes due to Hong Kong's changing socio-economic environment and other contributing factors over succeeding time periods;
- assess the energy consumption levels as compared to other countries/economies, where similar data are available;
- identify where and how measures can be developed and implemented to reduce energy consumption;
- set collective improvement targets;

The indicators and benchmarks shall also enable individual operators to:

- compare their performance (with respect to energy consumption) with the benchmarks;
- identify room for improvement of energy efficiency;
- set private targets for improvements.

Scope of the Indicators and Benchmarks

The current study focuses on four important energy-consuming groups of both the commercial and transport sectors: offices, commercial outlets, private cars and light goods vehicles. According to the characteristics of the four groups in Hong Kong, they are further sub-divided into the following 29 sub-groups:

(i) Offices

Sub-group 1: Common services for buildings with central A/C for tenants

Sub-group 2: Tenant units in buildings with central A/C supply

Sub-group 3: Common services for buildings without central A/C for tenants

Sub-group 4: Tenant units in buildings without central A/C supply

Sub-group 5: Whole building

(ii) Commercial Outlets

For outlets in shopping centres

Sub-group 1: Common services

- Sub-group 2: Tenant units - Chinese restaurants
- Sub-group 3: Tenant units - non-Chinese restaurants
- Sub-group 4: Tenant units - fast-food shops, bars and other eating and drinking places
- Sub-group 5: Tenant units - supermarkets
- Sub-group 6: Tenant units - general retail (food)
- Sub-group 7: Tenant units - general retail (non-food)
- Sub-group 8: Whole building

For standalone restaurants and shops > 75 m²

- Sub-group 1: Chinese restaurants
- Sub-group 2: Non-Chinese restaurants
- Sub-group 3: Fast-food shops, bars and other eating and drinking places
- Sub-group 4: Supermarkets
- Sub-group 5: General retail (food)
- Sub-group 6: General retail (non-food)

(iii) Private Cars

- Sub-group 1: Private cars < 1500 c.c.
- Sub-group 2: Private cars 1501 to 2000 c.c.
- Sub-group 3: Private cars 2001 to 2500 c.c.
- Sub-group 4: Private cars 2501 to 3000 c.c.
- Sub-group 5: Private cars > 3000 c.c.

(iv) Light Goods Vehicles

- Sub-group 1: All petrol LGVs
- Sub-group 2: Diesel LGVs with Gross Vehicle Weight < 2.5 tonnes
- Sub-group 3: Diesel LGVs with Gross Vehicle Weight 2.51 – 4.00 tonnes
- Sub-group 4: Diesel LGVs with Gross Vehicle Weight 4.01 – 5.50 tonnes

Indicators and benchmarks to be developed

The following indicators and benchmarks will be developed from data obtained through a series of surveys :

Offices:

- MJ/m²/annum
- MJ/person/annum
- MJ/m²/hour
- MJ/person/hour

Commercial Outlets:

- MJ/m²/annum
- MJ/person/annum or MJ/customer/annum or MJ/seat/annum
- MJ/m²/hour
- MJ/person/hour or MJ/customer/hour or MJ/seat/hour

Private Cars:

- Litre/100 km for different weather and driving conditions
- Annual average litre/100 km
- Litre/person-km

Light Goods Vehicles

- Litre/100 km for different weather and driving conditions
- Annual average litre/100 km
- Litre/tonne-km

Progress of the Development of the Indicators and Benchmarks

The study to develop the above indicators and benchmarks is entering the final stages and is targeted for completion in early 2002. A benchmarking tool for users will also be made available to enable them to compare their energy efficiency performance against others in the same group and to set improvement targets.