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# **The Hong Kong Voluntary Energy Efficiency Labelling Scheme for**

## **Multifunction Devices**

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Energy Efficiency  **EMSD**

Electrical and Mechanical Services Department

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## **1. Purpose**

This set of document is intended to give a general description on the introduction of the Hong Kong Voluntary Energy Efficiency Labelling Scheme (EELS) for Multifunction Devices.

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## **2. Background**

### **The Nature of Energy Efficiency Labelling Scheme**

- 2.1 The EELS is an energy conservation initiative that the Government of the Hong Kong Special Administrative Region (HKSAR) has adopted. Under the scheme, some common types of appliances will incorporate an energy efficiency label that serves to inform consumers of the product's energy consumption and efficiency. Consumers should then be able to take those factors into account and make their own choice.

### **Objectives of Energy Efficiency Labelling Scheme**

- 2.2 The concept of EELS has been developed and implemented in many developed nations in several forms and in different stages of development. In some countries, it is now a compulsory requirement for certain kinds of electrical appliances to be provided with an energy label before they can put on the market. Such labelling requirements may apply to equipment such as household refrigerators, washing machines, room coolers, clothes dryers, compact fluorescent lamp, storage water heaters, etc. The EELS generally aims to achieve the following:
- greater public awareness of energy conservation and environmental improvement needs;
  - provision of readily available, pre-purchase information on energy consumption and efficiency data, where applicable, to enable ordinary consumers to select more energy efficient products;
  - stimulation to the manufacturers/market for phasing out less energy efficient models; and
  - actual energy saving.

- 2.3 Hong Kong also aims at achieving the above objectives and the Hong Kong Voluntary EELS now covers eighteen types of household appliances and office equipment. Ten types of which are electrical appliances and seven types of office equipment. There is also one type of gas appliance for domestic gas instantaneous water heaters. The scope of EELS has also been extended to cover petrol passenger cars.

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### **3. Scope**

- 3.1 The scheme will only apply to the manufacturers and importers (local agents, retailers and the related parties) who have participated in the voluntary scheme.
- 3.2 The scheme commenced on 28 December 2001. The revision of the scheme has been implemented from January 2010 and will expire on 31 December 2012 when re-registration is necessary.
- 3.3 The provisions of this scheme shall apply to electrically operated multifunction devices intended for production of A4-sized duplicates from graphical hard copy originals as well as performing one or both of the core functions such as printing, faxing, scanning, etc. However, devices whose primary function is faxing and offers limited sheet copying capabilities (so-called single sheet “convenience copying”) are not covered under this scheme.
- 3.4 Moreover, multifunction devices designed to handle multi-sized papers including A4-sized paper can also be qualified under this scheme provided that they can comply with the energy efficiency requirements for A4-sized paper.
- 3.5 The scope of application covers all new registered appliances imported to or manufactured in Hong Kong with effect from the date that is declared by the participant but does not cover second-hand products, products already in existing use, under trans-shipment or manufactured for export, etc.
- 3.6 The scheme will be operated as a ‘Recognition Type’ labelling system. All appliances will be recognised and registered provided that they can meet the energy efficiency and performance requirements stipulated in the scheme.

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## 4. Definitions

Unless otherwise specified, the following definitions shall apply throughout this document:

*A4-sized paper* means paper measured 210 x 297 mm in dimensions.

*Accessory* means a piece of additional equipment that is not necessary for the standard operation of the base unit, but that may be added before or after shipment in order to enhance or change multifunction device performance. Any accessories fitted to the multifunction device shall not impede the normal operation of energy saving features such as low-power mode, etc.

*Authority* means the Electrical & Mechanical Services Department, the Government of the Hong Kong Special Administrative Region (HKSAR).

*Automatic Duplex Mode* means the mode in which the multifunction device automatically places images on both sides of a copy sheet by automatically sending both the copy sheet and the graphic original through the multifunction device.

*Base Unit* means the most basic version of a multifunction device for a given multifunction device speed that is actually sold as a fully operational model. The base unit can be designed and shipped in a single piece or as a combination of functionally integrated components. The base unit must allow copying and one or both of the additional core functions of printing or faxing. The base unit does not include any external power-consuming accessories that may be sold separately.

*Default Time* means the time period set by the manufacturer prior to shipping that determines when the multifunction device will enter its various modes, i.e. the low-power mode, the sleep mode, etc.

*Director* means the Director of Electrical & Mechanical Services Department, the Government of the Hong Kong Special Administrative Region.

<i>Government</i>	means the Government of the Hong Kong Special Administrative Region.
<i>IEC</i>	means the International Electrotechnical Commission.
<i>Image Reproduction Speed</i>	means the image reproduction speed specified in terms of monochrome text output per minute at the default resolution of the multifunction device is expressed as images per minute (ipm). One image is defined as one A4-sized printed page of single-spaced monochrome text output, 12 point type, Times font, 2.54 cm margins on all sides of the page. Double-sided prints or copies count as two images even though they are printed on one piece of paper.
<i>Inspecting Officer</i>	means the officer authorized by the Director to carry out inspection on appliances.
<i>ISO</i>	means the International Organization for Standardization
<i>Label</i>	means the energy label as described in Section 7 of this document.
<i>Low-power Mode</i>	means the condition that exists when the multifunction device is not producing hard copy output and is consuming less power than when in a standby mode. The multifunction device enters this mode within a specified period of time after the last hard copy output has been made no matter what is the input source.
<i>Multifunction Device</i>	means a physically integrated device or a combination of functionally integrated components that produces hard copy duplicates from graphical hard copy originals as well as performing one or both of the core functions such as printing, faxing, scanning, etc. The device may be connected to a network, and may output black and white, grey scale, or colour images.
<i>Multifunction Device Model</i>	means a base unit and one or more specific accessories that are advertised and sold to consumers under a single model number. When advertised and sold to consumers without any additional accessories, a base unit is also considered a multifunction device model.
<i>Participant</i>	means the manufacturers, importers or the retailers of multifunction devices participating in the scheme.

<i>Rated Frequency</i>	Means the frequency shown on the nameplate of the equipment.
<i>Rated Voltage</i>	Means the voltage shown on the nameplate of the equipment.
<i>Recognized Laboratory</i>	means a laboratory that complies with the requirements as stated in Section 8 of this document and is acceptable to the Authority for carrying out tests and issuing test reports on multifunction devices.
<i>Recovery Time</i>	means the amount of time needed to bring the multifunction device from the low-power mode to the standby mode.
<i>Scheme</i>	means the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Multifunction Devices.
<i>Sleep Mode</i>	means the lowest power state the multifunction device can automatically enter without actually turning off. In this mode, both hard copy output and the acceptance of imaging information from some input ports may be delayed. The multifunction device enters the sleep mode within a specified period of time after the last hard copy output was made or after it has entered the low-power mode if a low-power mode is provided.
<i>Standby Mode</i>	means the condition that exists when the multifunction device is not producing output, has reached operating conditions and is ready to make hard copy output, but has not yet entered into the low-power mode. When the multifunction device is in this mode, there will be virtually no delay before the multifunction device is capable of making the next hard copy output.
<i>Upgradeable Digital Copier</i>	means a reprographic imaging unit whose sole function is the production of duplicates from a graphic hard copy original using digital imaging technology, but that provides the option of being upgraded to offer multiple functions, such as printing or faxing capabilities, through the installation of add-on devices. In order to be classified as an upgradeable digital copier, the upgrade options must be available on the market or intended for availability within one year after the base unit is launched.

## 5. Technical Standards

### Maximum Power Rating Requirements

- 5.1 The power rating of a multifunction device model (or base unit) at various multifunction device speeds for “low-power” mode and “sleep” mode operations shall qualify according to the corresponding specifications as shown in Table 1.

### Effective Date

- 5.2 Phase I: The first phase of this specification, Phase I, commenced on 28 December 2001 and shall be terminated after **30 September 2007**. Any formal application submitted within the Phase I period should meet the Phase I specification in order to qualify for this scheme.
- 5.3 Phase II: The second phase of this specification, Phase II, shall commence on **1 October 2007**. Any formal application submitted in the Phase II should meet the Phase II specification in order to qualify for this scheme.

Table 1: Maximum Allowable Power Rating for Multifunction Device

Multifunction Device Speed (ipm)	Low-power Mode (Watts)	Sleep Mode (Watts)	Low-power Mode (Watts)	Sleep Mode (Watts)
	Phase I (effective from 28/12/2001)		Phase II (effective from 01/10/2007)	
$0 < \text{ipm} \leq 10$	NA	$\leq 25$	NA	$\leq 20$
$10 < \text{ipm} \leq 20$	NA	$\leq 70$	NA	$\leq 55$
$20 < \text{ipm} \leq 44$	$3.85 \times \text{ipm} + 50$	$\leq 80$	$3.00 \times \text{ipm} + 40$	$\leq 60$
$44 < \text{ipm} \leq 100$	$3.85 \times \text{ipm} + 50$	$\leq 95$	$3.00 \times \text{ipm} + 40$	$\leq 75$
$100 < \text{ipm}$	$3.85 \times \text{ipm} + 50$	$\leq 105$	$3.00 \times \text{ipm} + 40$	$\leq 80$

- 5.4 Some digital copiers can be upgraded into a multifunction device with the installation of add-on devices that allow printing or faxing capabilities. However, when an upgradeable digital copier is sold independently of the add-on devices, the upgradeable digital copier shall qualify according to the corresponding specifications as shown in Table 2.

Table 2: Maximum Allowable Power Rating for Upgradeable Digital Copier

Upgradeable Digital Copier Speed (ipm)	Low-power Mode (Watts)	Sleep Mode (Watts)	Low-power Mode (Watts)	Sleep Mode (Watts)
	Phase I (effective from 28/12/2001)		Phase II (effective from 01/10/2007)	
$0 < \text{ipm} \leq 10$	NA	$\leq 5$	NA	$\leq 4$
$10 < \text{ipm} \leq 20$	NA	$\leq 5$	NA	$\leq 4$
$20 < \text{ipm} \leq 44$	$3.85 \times \text{ipm} + 5$	$\leq 15$	$3.00 \times \text{ipm} + 4$	$\leq 12$
$44 < \text{ipm} \leq 100$	$3.85 \times \text{ipm} + 5$	$\leq 20$	$3.00 \times \text{ipm} + 4$	$\leq 16$
$100 < \text{ipm}$	$3.85 \times \text{ipm} + 5$	$\leq 20$	$3.00 \times \text{ipm} + 4$	$\leq 16$

### Default Times Requirements

- 5.5 The default times of a multifunction device model (or base unit) at various speeds for “sleep” mode operation shall qualify according to the corresponding specifications as shown in Table 3. The specifications shall also be applicable to an upgradeable digital copier.

Table 3: Maximum Allowable Default Times

Multifunction Device Speed (ipm)	Low-power Mode Default Time (minutes)	Sleep Mode Default Time (minutes)
$0 < \text{ipm} \leq 10$	NA	$\leq 15$
$10 < \text{ipm} \leq 20$	NA	$\leq 30$
$20 < \text{ipm} \leq 44$	$\leq 15$	$\leq 60$
$44 < \text{ipm} \leq 100$	$\leq 15$	$\leq 90$
$100 < \text{ipm}$	$\leq 15$	$\leq 120$

### General Performance Requirements

- 5.6 The recovery time and automatic duplex requirements of a multifunction device model (or base unit) at various speeds are specified in Table 4. The specifications shall also be applicable to an upgradeable digital copier.

Table 4: Specifications for Recovery Time and Automatic Duplex Mode

Multifunction Device Speed (ipm)	Recovery Time (seconds)	Automatic Duplex Mode
$0 < \text{ipm} \leq 10$	NA	No
$10 < \text{ipm} \leq 20$	NA	No
$20 < \text{ipm} \leq 44$	$\leq 30$	Optional
$44 < \text{ipm} \leq 100$	$\leq 30$ Recommended	Optional
$100 < \text{ipm}$	$\leq 30$ Recommended	Optional

- 5.7 Duplexing is not required to be the default setting for any multifunction devices. However, it is required to be offered as an option for all standard size multifunction devices faster than 20 ipm. Further, it is recommended that multifunction devices be shipped with automatic duplexing set as the default mode for copying and any other feasible functions and described to customers upon installation.

### Safety Requirements

- 5.8 All materials and workmanship of multifunction devices are also needed to comply with IEC 60950, Information Technology Equipment – Safety and/or the Electrical Products (Safety) Regulation of the HKSAR, where applicable.

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## 6. Test Methods

### General

- 6.1 All test methods specified in this document are only related to checking compliance with the average power rating and general performance requirements. It is not the intention of this document to detail out the test standards and requirements for checking compliance with the Electrical Products (Safety) Regulation of the HKSAR. The participant should conduct appropriate tests, where necessary, in addition to those specified in this document in order to comply with the requirements stipulated in the aforesaid Electrical Products (Safety) Regulation.

## Compliance with Safety Requirements

- 6.2 The testing standards for checking compliance with the safety requirements are based on IEC 60950, Information Technology Equipment - Safety. For detailed requirements and procedural descriptions one should refer to the respective standard.
- 6.3 To the extent that definitions in the IEC standard do not conflict with the definitions of this document, the definitions in the aforesaid standard shall be included.

## Test Conditions

- 6.4 For all multifunction devices, the test conditions shall be as follows:
- |     |                             |                   |
|-----|-----------------------------|-------------------|
| (a) | Electrical supply           | 220V $\pm$ 6%;    |
| (b) | Frequency                   | 50Hz $\pm$ 2%;    |
| (c) | Line impedance              | < 0.25 ohm;       |
| (d) | Total harmonic distortion   | < 5% (voltage);   |
| (e) | Test room temperature       | 23 °C $\pm$ 5 °C; |
| (f) | Test room relative humidity | 40% to 60%; and   |
| (g) | Distance from wall          | 150 mm (maximum). |
- 6.5 The electrical supply used for all tests shall be stabilised at test room conditions for at least twelve (12) hours prior to commencing the power measurements.

## Test Equipment

- 6.6 A watt-hour meter (or an "energy analyser") shall be used to measure the energy consumption of the multifunction device under test. The watt-hour meter shall be capable of reading the energy drawn by the multifunction device without disrupting the electrical power supply.
- 6.7 The watt-hour meter should have a frequency response of at least 3 kHz and should provide resolution of 0.1W and accuracy of  $\pm$  1%. In addition, the meter should be capable of reading the current drawn by the multifunction device without causing internal peak distortion (i.e. clipping off the top of the current wave). The use of a watt-hour meter with higher crest factors and more current range choices should be preferred.

## Measurement of Power Rating

- 6.8 Energy consumption of a multifunction device model (or base unit) shall be measured for both “sleep” mode and “low-power” mode operations each for a period of one (1) hour. The average power rating at each mode is then obtained by dividing the resulting energy consumption by one (1) hour to check compliance with the specified technical requirements.
- 6.9 The measurement procedures for the “sleep” mode operation are as follows:
- (a) Before every measurement, make sure any anti-humidity devices fitted to the multifunction device under test are properly disconnected from the electrical power supply.
  - (b) Prior to the start of the measurement, the multifunction device should have been connected to the specified electrical power supply but turned off and stabilised at the specified room conditions for at least twelve (12) hours.
  - (c) An appropriate watt-hour meter connected to the multifunction device, without causing disruption to the power source, shall measure the energy consumption of the multifunction device.
  - (d) Turn on the multifunction device and let it go through its warm-up cycle. When it is ready to make a hard copy output, make one copy or print one page, then wait exactly the amount of time specified in Table 3 to enter the “sleep” mode.
  - (e) The energy consumption of the multifunction device is measured and the time is recorded after the default time required for the multifunction device to enter the “sleep” mode.
  - (f) The energy consumption of the multifunction device is measured again after one (1) hour. The difference between the two readings of the watt-hour meter is the “sleep” mode energy consumption of the multifunction device. The average power rating at this mode is obtained by dividing the energy consumption by one (1) hour.
- 6.10 The measurement procedures for “low-power” mode operation are as follows:
- (a) Before every measurement, make sure any anti-humidity devices fitted to the multifunction device under test are properly disconnected from the electrical power supply.

- (b) Prior to the start of the measurement, the multifunction device should have been connected to the specified electrical power supply but turned off and stabilised at the specified room conditions for at least twelve (12) hours.
  - (c) An appropriate watt-hour meter connected to the multifunction device, without causing disruption to the electrical power source, shall measure the energy consumption of the multifunction device.
  - (d) Turn on the multifunction device and let it go through its warm-up cycle. When it is ready to make a hard copy output, make one copy or print one page, then wait exactly the amount of time specified in Table 3 to enter the “low-power” mode.
  - (e) The energy consumption of the multifunction device is measured and the time is recorded after the default time required for the multifunction device to enter the “low-power” mode.
  - (f) The energy consumption of the multifunction device is measured again after one (1) hour. The difference between the two readings of the watt-hour meter is the “low-power” mode energy consumption of the multifunction device. The average power rating at this mode is obtained by dividing the energy consumption by one (1) hour.
- 6.11 The “low-power” mode measurement may be done sequentially with the “sleep” mode power rating measurement provided that the two measurements shall take no more than fourteen (14) hours to perform, including the time required for the multifunction device to be plugged in and turned off.
- 6.12 The average power rating of the multifunction device in either “low-power” or “sleep” mode operations shall be determined by computing the average value of five (5) respective separate power rating measurements. The result shall be rounded off to the nearest unit of a watt.

### **Measurement of Default and Recovery Time**

- 6.13 Default times for “low-power” and “sleep” modes shall be measured from the last copy is finished to the time when the relevant mode of operation starts, by the use of a stop clock.
- 6.14 The recovery time of the multifunction device shall be measured from the time required to change the multifunction device from “low-power” mode to “standby” mode, by the use of a stop clock.

- 6.15 The default time for the “low-power” mode and the “sleep” mode as well as the recovery time for the “low-power” mode shall be determined by computing the average value of five (5) respective separate measurements.
- 6.16 The test procedures mentioned in Section 6.8 to Section 6.15 shall also be applicable to an upgradeable digital copier.

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## **7. Energy Label**

### **General**

- 7.1 Energy labels are classified into the following two types:
- (a) Verification label; and
  - (b) Information label.
- 7.2 A verification label indicates the appliance meets the energy performance standards as required by the scheme. It is a compulsory requirement for participant to affix this label to his registered appliances.
- 7.3 An information label contains information to guide the general public to contact the Authority regarding enquires about the scheme. The affixation of this label to registered appliances is optional.

### **Label Location**

- 7.4 The labels should be self-adhesive and affixed to the appliance at a prominent location. The participant should ensure that the verification label appears on every registered appliance on display or sale and should be easily visible.

### **Colour Scheme and Dimensions**

- 7.5 The labels should be printed on white-coloured self-adhesive sheet material and should have colour schemes and dimensions as shown in Annex 1. It should be printed in English and in Chinese.

## Paper Quality

- 7.6 Papers used for the energy labels should be durable and possess good wear and tear characteristics. It should stick tightly on the appliance.

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## **8. Testing Facilities, Laboratories and Accreditation Bodies**

- 8.1 The testing is carried out either by independent test institutes or by the manufacturers or by importers themselves at their own test facilities. The Authority will accept the results and certificates issued by the test laboratory, which fulfils one of the following criteria as specified in Section 8.2, 8.3 or 8.4.
- 8.2 The laboratory is accredited by the Hong Kong Accreditation Service (HKAS) for the relevant test under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or a scheme with which HKAS has concluded a mutual recognition agreement, and the results are issued in a test report or certificate bearing the accreditation mark (see Note).
- 8.3 The Authority will also consider the following arrangement:
- (a) Self-declaration by original manufacturer that the operations of their in-house laboratories satisfy the requirements of ISO/IEC 17025; and
  - (b) The manufacturers currently operating according to a recognized international quality system (such as ISO 9001); and
  - (c) The manufacturer's in-house laboratories had been successful in carrying out energy consumption tests on office equipment and where these tests had been evaluated and certified by internationally recognised third party certification organisations.
- 8.4 The Authority will also consider test results issued by a laboratory which is accredited by HKAS or is accredited by an accreditation body which has concluded a mutual recognition arrangement with HKAS for testing laboratories for laboratory testing of electrical and mechanical appliances other than testing based on the technical standards stipulated in this scheme; if the laboratory can demonstrate their capability of carrying out tests on multifunction devices in accordance with the test methods stipulated in Section 6.

## Laboratory Accreditation

- 8.5 The Authority takes cognizance of the need to ensure acceptable and compatible quality standards of testing laboratories, and considers that they need to be accredited by some independent bodies.
- 8.6 The criteria of accreditation should be based on ISO/IEC 17025 and accreditation bodies should operate in accordance with ISO/IEC 17011.
- 8.7 The Authority will recognize accreditation granted by the HKAS under the HOKLAS and by overseas schemes which have concluded mutual recognition agreements with HKAS for accreditation of testing laboratories. The Authority will consider accreditation granted by other bodies on a case-by-case basis.

## Energy Efficiency Verification Service

- 8.8 An increasing number of countries now accept, as proof of product conformance, energy efficiency verification services provided by third-party organisation that has been accredited as a certification organisation. In accordance with this trend, the Authority will consider seriously test results that have been evaluated and verified against the energy efficiency standards of the scheme by reputable third-party certification organisations.

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**Note:** *HKAS has concluded mutual recognition arrangements with **fifty-eight** overseas accreditation bodies for testing laboratory accreditation, namely, **UKAS** of the United Kingdom, **NATA** of Australia, **AZLA**, **NVLAP**, **IAS** and **L-A-B** of the United States, **IANZ** of New Zealand, **RvA** of Netherlands, **SAC** of Singapore, **BMwa** of Austria, **BELAC** of Belgium, **DANAK** of Denmark, **FINAS** of Finland, **COFRAC** of France, **DAP**, **DACH** and **TAG** of Germany, **INAB** of Ireland, **ACCREDIA** of Italy; **NA** of Norway,, **ENAC** of Spain, **SWEDAC** of Sweden, **SAS** of Switzerland, **CNAS** of People's Republic of China, **TAF** of (Taiwan,China), **CAI** of Czech Republic, **INMETRO** of Brazil, **IAJapan**, **JAB** and **VLAC** of Japan, **KOLAS** of Korea, **SANAS** of South Africa, **SCC** of Canada, **NABL** of India, **BoA** of Viet Nam, **LA** of Lithuania, **SNAS** of Slovakia, **KAN** of Indonesia, **ISRAC** of Israel, **DSM** of Malaysia, **ema** of Mexico, **PNAC** of Pakistan, **PAO** of Philippines, **NSC-ONAC**, **DSS** and **DMSc** of Thailand, **TUNAC** of Tunisia, **TURKAK** of Turkey, **OAA** of Argentina, **ONARC** of Cuba, **NLAB** of Egypt, **EAK** of Estonia, **ESYD** of Greece, **LATAK** of Latvia, **PCA** of Poland, **SA** of Slovenia, etc. The list of mutual recognition arrangement partners may change from time to time and the up-to-date list is available from the HKAS website of [www.info.gov.hk/itc/hkas](http://www.info.gov.hk/itc/hkas). Partners to these arrangements recognise the accreditations granted by one another as equivalent.*

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## **9. Registration and Participation**

### **Registration Procedures**

9.1 All manufacturers, importers and the other parties involved in the appliance distribution network are welcomed and encouraged to participate in the scheme. For some known manufacturers and importers, invitation letters will be issued to them. However, any party may submit their applications for registration no matter whether they are invited or not. The proforma letter of invitation is shown in Annex 2.

9.2 Applicant should submit his formal application to the following address:

*Chief Engineer/Energy Efficiency A  
Energy Efficiency Office  
Electrical & Mechanical Services Department  
3 Kai Shing Street, Kowloon  
Hong Kong*

by means of an application letter through mail, facsimile or electronic mail. In order to ensure effective implementation of the scheme, the applicant must be committed to fully comply with the duties, responsibilities and obligations set out in this scheme. The proforma letter of application as shown in Annex 3 details the aforesaid obligations and should be used for application. To facilitate the application process, the application form can be downloaded from EMSD website or on-line application can be used..

### **Information/Documents to be Submitted for Registration**

9.3 Each make and model of an appliance participating in the scheme should be provided with a test report issued by a recognized laboratory. The test report should contain energy consumption test and performance test results.

9.4 Details of the general and technical information to be submitted together with the application are listed as follows:

- (a) Information on the company such as name, address, telephone number, fax, e-mail address, contact person, importer, distributor, email address, etc;
- (b) Products to apply for participating in the scheme such as names of products, types, brand names, model references, countries of origin, etc.;
- (c) Parties that will be responsible for making and fixing the energy labels;

- (d) Commencement date to affix energy labels on appliance;
- (e) Documentary proof that the appliance(s) comply with IEC 60950, Safety on Information Technology Equipment and/or the Electrical Products (Safety) Regulation of the HKSAR, where applicable; and
- (f) Detailed test reports with multifunction device speed specified shall provide at least the following relevant technical data for the appliance:
  - “Low-power” mode energy consumption and power rating;
  - “Sleep” mode energy consumption and power rating;
  - “Low-power” mode default time;
  - “Sleep” mode default time;
  - Recovery time; and
  - Provision of automatic duplex mode.

9.5 Company's name and chop should be stamped on all the documents provided. All photocopy test reports submitted to the Authority shall be certified true copy by appropriate organization.

#### **Acceptance of Registration**

- 9.6 On receipt of the application, the Authority will process the application and verify whether the appliance meets the energy efficiency and performance requirements based on the submitted data. The accuracy of the submitted data, their inconsistencies and non-compliance will be dealt with in accordance with Section 11.
- 9.7 If the application is accepted, the participants will be notified of the result in writing within 17 working days. The participants will then be allowed to affix the energy label onto the ‘registered’ appliance. Both manufacturer and importer of the registered appliance should ensure that the energy labels are correctly printed and affixed on the appliance in accordance with the requirements of Section 7. The proforma letter of acceptance is shown in Annex 5.
- 9.8 If the application is rejected, the notification letter as shown in Annex 6 will also be given in 17 working days.
- 9.9 The flow chart for registration is shown in Annex 7.

## **Participant's Duties, Responsibilities and Obligations**

- 9.10 The participant is obliged to:
- (a) submit application and information including test results in accordance with format and procedures set out in Sections 9.2 to 9.5;
  - (b) conduct tests via recognized laboratories and to comply with the specified test methodology and classification scheme;
  - (c) produce and affix energy labels at his own costs;
  - (d) fully inform other sales agents in his distribution network once the particular make and model of an appliance is registered;
  - (e) allow random/ad-hoc inspection to be conducted by persons authorized by the Authority on registered appliance at his premises;
  - (f) conduct re-test(s) at his own costs at some recognized laboratories, if non-compliance is found on the appliance. The result of re-test(s) shall reach the Authority within the prescribed period of time specified by the Authority;
  - (g) inform the Authority of any change in the technical information and data that were previously submitted to the Authority together with the application letter;
  - (h) accept the fact that if appliance fails to perform in accordance with the requirements as given in Sections 5 and 6 and this cannot be readily rectified, the Authority may order it be de-registered from the scheme; and
  - (i) remove all labels from appliances which had been de-registered within three months.
- 9.11 The details of the registered appliances will be kept in a register maintained by the Authority. The registration records will be regularly uploaded and maintained in the EMSD Internet for public and interested parties for access and information.

### **Special Exemptions on the Compliance with the Technical Standards**

- 9.12 The participant shall not alter the registered base unit or multifunction device model in any way that will affect the multifunction device's ability to meet the technical standards of the scheme except under the following circumstances:
- (a) The participant or his representatives may change the default times of the multifunction device for "low-power" and/or "sleep" modes at the request of the end-users, but only up to a factory-set maximum of 240 minutes. The combined total for "low-power" mode and "sleep" mode default times shall not exceed 240 minutes; or
  - (b) The participant may disable the "sleep" mode feature of the multifunction

- device at the request of the end-users; or
- (c) The participant may energize the integral anti humidity device fitted to the multifunction device at his own discretion or at the request of the end-users.

### Termination

9.13 Under the following circumstances of poor performance such as:

- (a) Repeated failure to fulfil obligations set out under Section 9.10; or
- (b) In any other case where the Director is of the opinion that registration of an appliance is contrary to the public interest.

The Authority may de-register a registered appliance with immediate effect by giving the participant notice in writing. Once an appliance is de-registered, no one is allowed to fix an energy label on it. However, participant will normally be given a grace period of three months to remove all labels from the de-registered appliances. De-registration may occur even when there is no legal action taken under either the Trade Descriptions Ordinance (Cap. 362) or the Copyright Ordinance.

9.14 Participant who decides to discontinue participating in the scheme or to withdraw any registered model from the registered appliances list shall give at least three months' advance notice to the Authority.

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## 10. Legal Provisions

10.1 The Hong Kong Energy Efficiency Labelling Scheme is a voluntary scheme. However, a participant who abuses the scheme by giving false information may contravene provisions of the Trade Descriptions Ordinance (Cap. 362).

10.2 No one could take advantage of the scheme by using the label on his appliances without authorization of the Authority, as that may constitute an infringement of copyright under the Copyright Ordinance.

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## 11. Compliance Monitoring and Inspection

### Purpose

- 11.1 To uphold credibility of the scheme and to maintain continuous confidence of the consumers, compliance check on energy labels on those appliances participating in the scheme are needed. Also, to avoid the unsatisfactory situation that the non-participating parties taking advantage of the scheme by using unauthorized labels, the Authority may also carry out suitable form of inspection on those appliances which have not been registered under the Scheme.

### Scope

- 11.2 The scope of inspection includes sample checking and testing the following items:
- (a) whether energy label is in fact placed on the registered appliance;
  - (b) whether energy label on the registered appliance is in a prominent position;
  - (c) whether energy label being displayed is of correct format in accordance with Section 7;
  - (d) whether unregistered appliances display unauthorized energy labels;
  - (e) whether the registered appliance complies with the energy consumption and performance requirements; and
  - (f) whether the data submitted by the participants are correct by random re-testing.
- 11.3 The participants will be requested to take immediate remedial action and report the follow-up action taken if non-compliance is found on their appliances.
- 11.4 If a registered appliance carrying energy label but found not meeting the requirements specified in accordance with the technical standards stipulated in Section 5, the participant will also be requested to repeat the performance tests at his own costs by an agreed testing laboratory.
- 11.5 If non-compliance is confirmed and no remedial action is to be taken by the applicant, the Authority may order it be de-registered from the scheme. Failure to remove energy

labels from the de-registered appliances after the Director has withheld his authorization for using such labels may contravene the relevant ordinances.

### **Inspecting Officers**

- 11.6 The Authority will authorize inspecting officers to carry out appliances compliance monitoring and inspection. The officers will carry proper identification cards which will be produced on request during their inspection operations. However, the officer will not inform the participants in advance of their intended inspection operation.
- 11.7 It is the participants' duty to allow the inspecting officers to gain access to their premises to carry out inspection.

### **Mode of Inspection**

- 11.8 Inspections will be carried out on registered appliances on random basis. Based on the record of the registration, random inspection programmes will be developed.
- 11.9 In addition to the random inspections, the inspecting officers will carry out ad-hoc inspections in response to complaints. The items to be inspected in such a case will depend upon the nature of complaint and may include all types of inspection as stated in Section 11.2.
- 11.10 Inspections will normally be carried out at the retail outlets and appliances showrooms. Where necessary, inspection will also be done at warehouses.
- 11.11 The inspection results will be properly recorded for future analysis as well as on evaluation of the effectiveness of the scheme.

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## **12. Complaints and Appeal**

- 12.1 The Authority will be responsible for dealing with complaints from participant and other parties against matters related to the scheme.

### **Complaints Handling Procedure**

- 12.2 The Director shall ensure that complaints are properly recorded and handled without undue delay.
- 12.3 The Authority shall carry out preliminary investigation on complaints and reply to the complainants within a reasonable time. For complaints that require site inspection and laboratory test, the complainant shall be notified through an interim reply.
- 12.4 The Authority shall inform the complainant of the results or decisions made on the complaint.

### **Appeal Procedure**

- 12.5 A participant who is aggrieved by a decision or action taken by the Authority may appeal to the Director in writing stating the reason for the appeal.
- 12.6 The Director may decide to suspend the decision or action given by the Authority from the day on which the appeal is made until such appeal is disposed of, withdrawn or abandoned unless such suspension would, in the opinion of the Director, be contrary to public interest.
- 12.7 The Director may by notice to the appellant require the appellant to attend before him or his representatives and provide documents and give evidence relevant to the appeal.
- 12.8 The Director shall notify the appellant of his decision and reasons for it. The decision will be final and binding.

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## **13. Maintenance of Scheme**

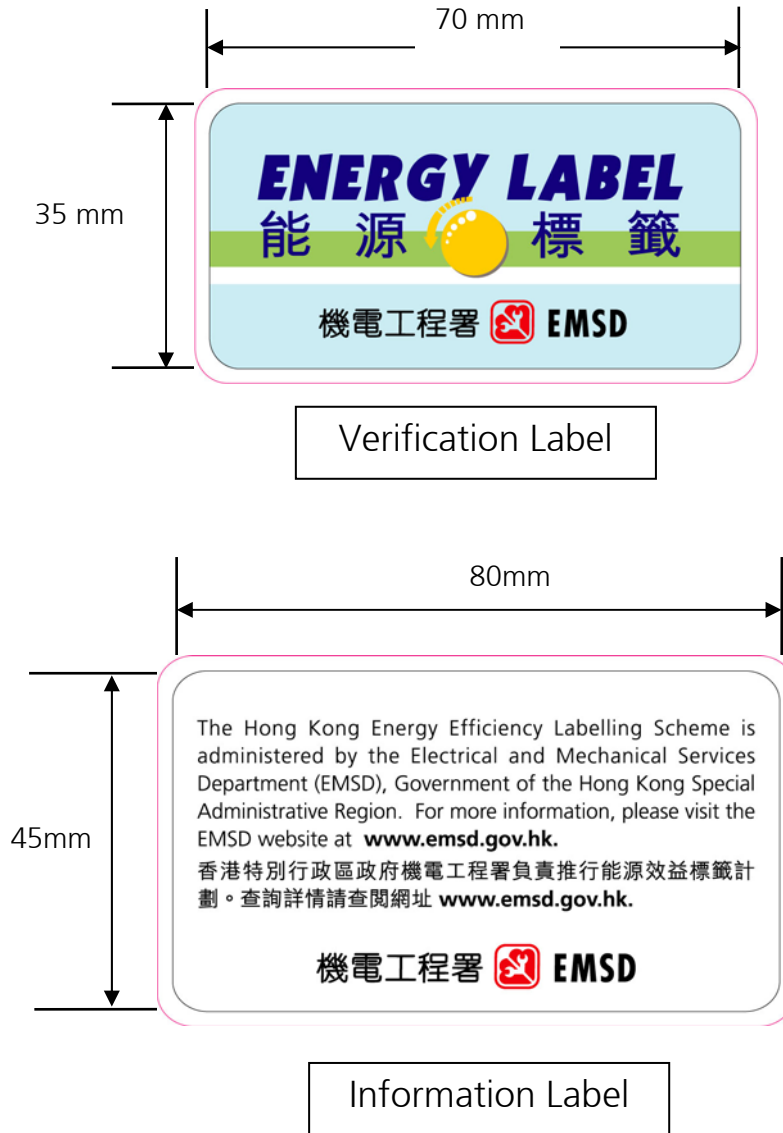
- 13.1 To ensure that the scheme can continue to operate effectively and efficiently after its introduction, a proper system of maintenance is needed.
- 13.2 The maintenance system consists essentially of:
- (a) Continuous updating of the lists of participants in the scheme as follows:
    - i) Registered appliances with details such as registration number, date of registration or de-registration if it occurs, energy efficiency data, performance data, make, model and other related information; and
    - ii) Registered importers, manufacturers, local agents etc. in the distribution network with details such as address, date of registration or de-registration if it occurs, etc.
  - (b) Periodic review of the test methodology, procedures for application registration and compliance monitoring, etc. to bring them in line with the latest needs of the manufacturers, importers and retailers, etc.
  - (c) Continuous evaluation of the effectiveness of the scheme and assessment of what changes are necessary.

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## **14. Future Development**

- 14.1 It is hoped that following implementation, the market will phase out appliances of low efficiency and public awareness of using energy efficient products and energy conservation will be improved.
- 14.2 As part of the Government's ongoing efforts to promote the efficient use and conservation of energy, it is opportune to introduce a mandatory EELS by the inclusion of energy consuming products in phases. In the initial phase, refrigerators, room coolers and compact fluorescent lamps are being considered in the proposed mandatory EELS.

## **Energy Label Format**



Soft copies of these labels can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

## **Proforma Letter of Invitation**

Our ref. EEO/LB/19  
Your ref.

Tel.  
Fax.

Date

[Name and Address of  
Manufacturers/Importers/Agents]

Dear Sir/Madam,

### **Invitation of Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Multifunction Devices**

Having gone through the necessary consultations and duly considered the views from various concerned parties, the government has decided to introduce a voluntary energy efficiency labelling scheme for multifunction devices to Hong Kong with effect from (\_\_\_\_\_). The details of the scheme<sup>①</sup> have been finalized and I enclose herewith a copy of the scheme document for your reference.

Being one of the major multifunction devices manufacturers / importers / agents<sup>②</sup> in Hong Kong, you are invited to participate in the scheme so as to take part in promoting public awareness in energy conservation and environmental improvement to Hong Kong. If you are interested to participate in the scheme, please apply in accordance with the proforma letter of application (Annex 3 of the scheme document) and submit details including technical information in accordance with Annex 4 of the scheme document to the 'Chief Engineer / Energy Efficiency A' at the following address.

Energy Efficiency Office  
Electrical & Mechanical Services Department  
3 Kai Shing Street, Kowloon  
Hong Kong

Please be reminded to submit accurate test data to support your application. Under this Scheme, routine compliance monitoring and checking will be performed and if a registered multifunction device is found to be non-compliant, we may consider deregistering the multifunction device from the Scheme.

Should you need further clarification or information, you are most welcome to contact the undersigned or Mr. \_\_\_\_\_ on telephone number \_\_\_\_\_.

Yours faithfully,

for Director of Electrical & Mechanical Services

(Note: <sup>①</sup> 'scheme' means 'The Voluntary Energy Efficiency Labelling Scheme for Multifunction Devices '  
<sup>②</sup> delete as appropriate)

## **Proforma Letter of Application**

Your ref. EEO/LB/19  
Our ref.

Tel.  
Fax.

Date

Chief Engineer/Energy Efficiency A  
Electrical & Mechanical Services Department  
3 Kai Shing Street, Kowloon  
Hong Kong

Dear Sir/Madam,

### **Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Multifunction Devices**

Our company is the (manufacturer/importer/agent\*) of \_\_\_\_\_ in Hong Kong. We support the introduction of the labelling scheme to Hong Kong and would like to be one of the participants in the scheme to promote energy efficiency.

I understand fully the obligations and duties stated in the scheme and will comply with all relevant requirements, in particular those specified below:

- i) conduct tests via recognized laboratories and to comply with the specified test standards;
- ii) produce and affix specified Energy Labels at my own costs;
- iii) allow random/ad-hoc inspection to be conducted by persons authorized by the issuing Authority on registered appliance at my premises;
- iv) conduct re-test(s) at my own costs at some recognized laboratories, if the results of inspection suggest inaccurate energy label information being displayed. The result of re-test(s) shall reach the Authority within the prescribed period time specified by the Authority;
- v) inform the Authority of any change in the technical information and data that were previously submitted to the Authority together with the application letter; and
- vi) accept the fact that if appliance fails to perform in accordance with the required energy efficiency standards and performance as given in Section 5 of the scheme document and this cannot be readily rectified, the Authority may order it be de-registered from the scheme.

The details of information of those appliances that we intend to register with the Authority are shown in the attached document and are submitted herewith for your vetting.

Yours faithfully,

(Manufacturer/Importer/Agent's Name and Company Chop)

\* *delete as appropriate*

## **Information to be Submitted to Energy Efficiency Office**

1. Information on the company:  
Name, address, telephone and fax nos., e-mail address, contact person, importer, distributor, email address, etc.
2. Product to apply for participating in the scheme:  
Name of products, types, make, model references, countries of origin, etc.
3. Parties responsible for making and fixing the Energy Labels.
4. Commencement date to affix Energy Labels on appliance.
5. Detailed test reports with copier speed specified providing at least the following relevant technical data for the appliances:
  - (a) Low-power mode energy consumption and power rating;
  - (b) Sleep mode energy consumption and power rating;
  - (c) Low-power mode default time;
  - (d) Sleep mode default time;
  - (e) Recovery time; and
  - (f) Provisions of automatic duplex mode.
6. Documentary proof that the appliance(s) comply with the Electrical Products (Safety) Regulation of the Hong Kong Special Administrative Region.

*Note: Company's name and chop should be stamped on the all documents provided.  
All test reports submitted to the office should be certified true copy by appropriate organization.*

## **Proforma Letter of Acceptance**

Your ref.  
Our ref. EEO/LB/19

Tel:  
Fax:

Date  
「  
Manufacturers/Importers/Agents  
」

Dear Sir/Madam,

### **Acceptance of Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Multifunction Devices**

With reference to your letter of ref. \_\_\_\_\_ dated \_\_\_\_\_, I am pleased to inform you that your application to participate in the captioned scheme has been accepted.

I enclose herewith the registration certificates of multifunction devices registered. The registered multifunction devices are as follows:

<u>Brand/Make/Model</u>	<u>Registration No.</u>	<u>Effective date</u>
( )	( )	( )

You are allowed to affix energy label in specified format onto each and every appliance registered under the scheme. The contents of the energy label should be based on the information that you have provided in your application ref. \_\_\_\_\_ and dated \_\_\_\_\_.

The registration certificate of appliance registered is ready for your collection.

Should you have any queries regarding the scheme, please contact this office.

Yours faithfully,

for Director of Electrical & Mechanical Services

## **Proforma letter of Rejection**

Your ref.  
Our ref. EEO/LB/19

Tel.  
Fax.

Date

[  
Manufacturers/Importers/Agents  
]

Dear Sir/Madam,

### **Rejection of Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Multifunction Devices**

With reference to your letter of application ref. \_\_\_\_\_ dated \_\_\_\_\_, I regret to inform you that your application for registration to participate in the scheme has not been accepted for the following reasons:

1. \_\_\_\_\_ etc.

You are most welcome to submit new application again in future, when you have the necessary documents / information to support your application.

Yours faithfully,

for Director of Electrical & Mechanical Services

## Flow Chart for Registration

