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

## **Printers**

### **January 2013**

**Energy Efficiency**  **EMSD**

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## 1. Purpose

This set of documents is intended to give a general description on the introduction of the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Printers.

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## 2. Background

- 2.1 The Energy Efficiency Labelling Scheme (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 household appliances and office equipment will incorporate an energy 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 in making their purchasing decision.
- 2.2 The concept of EELS has been developed and implemented in several forms and in different stages of development. In some countries, as well as in Hong Kong, it is a compulsory requirement for certain kinds of appliances to be provided with energy labels before they can be put on the market. The labelling requirements may apply to equipment such as household refrigerators, washing machines, room coolers, clothes dryers, compact fluorescent lamps, 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 savings and environment improvement.
- 2.3 Hong Kong also aims at achieving the above objectives and the Hong Kong Voluntary EELS now covers twenty types of household appliances and office equipment. Twelve 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 who have participated in the voluntary scheme.
- 3.2 The scheme commenced on 30 December 2002. The revision of the scheme has been implemented from **1 January 2013** and will expire on **31 December 2015** when re-registration is necessary.
- 3.3 The scope of application covers all new registered printers imported to or manufactured in Hong Kong with effect from the date that is declared by the participants but does not cover second-hand products, products already in existing use, under trans-shipment or manufactured for export, etc.
- 3.4 The scheme will operate as a '**Recognition Type**' labelling system. All participating appliances will be registered under this scheme provided that they have met the performance requirement specified in the scheme.
- 3.5 Printers under this labelling scheme apply to all electrically operated black-and-white (B&W) or colour printers that are capable of receiving information from single-user or networked computers and serve as hard copy output devices for production of A4-sized copies. Printers 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.

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### **4. Definitions**

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

*A4- sized paper* means papers measured 210 mm 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 the printer performance. Any accessories fitted to the printer shall not impede the normal operation of energy saving features such as sleep mode, etc.

*Active mode* means the power state in which the product is connected to a power source and is actively producing output, as well as performing any of its other primary functions.

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

*Automatic Duplexing* means the capability of a multifunction device to automatically produce images on both sides of an output sheet (paper), without manual manipulation of output as an intermediate step. Examples of this are two-sided printing. A product is considered to have automatic duplexing capability only if the model includes all accessories needed to satisfy the above conditions.

*Base unit* means the most basic version of a printer for a given product speed that is actually sold as a fully operational model. The base unit can be designed and shipped as a single piece or as a combination of functionally integrated components. 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 printer will enter a low-power modes (e.g. the Sleep Mode and Off Mode) following completion of its primary function.

*Digital Front-end (DFE)* means a functionally-integrated server that hosts other computers and applications and acts as an interface to the printer. A DFE provides greater functionality to the printer. A DFE will be defined as either:

Type 1 DFE: A DFE that draws its DC power from its own AC power supply (internal or external) which is separate from the power supply that powers the printer. This DFE may draw its AC power directly from a wall outlet, or it may draw it from the AC power associated with the printer's internal power supply.

Type 2 DFE: A DFE that draws its DC power from the same power supply as the printer with which it operates. Type 2 DFEs must have a board or assembly with a separate processing unit that is capable of initiating activity over the network and can be physically removed, isolated, or disabled using common engineering practices to allow power measurements to be made.

A DFE also offer at least three of the following advanced features:

- (a) Network connectivity in various environments;
- (b) Mailbox functionality;
- (c) Job queue management;

(d) Machine management (e.g. waking the imaging equipment from a reduced power state);

(e) Advanced graphic user-interface;

(f) Ability to initiate communication with other host servers and client computers(e.g. scanning to email, polling remote mailboxes for jobs); or

(g) Ability to post-process pages (e.g. reformatting pages prior to printing).

*Dye Sublimation (DS)* means a marking technology where images are formed by depositing (subliming) dye onto the print media based upon the amount of energy delivered by the heating elements

*Direct Thermal (DT)* means a marking technology that transfers an image by burning dots onto coated media as it passes over a heated print head. DT products do not use ribbons.

*Director* means the Director of Electrical and Mechanical Services.

*Electro-Photography (EP)* means a marking technology characterized by illumination of a photoconductor in a pattern representing the desired hard copy image via a light source, development of the image with particles of toner using the latent image on the photoconductor to define the presence or absence of toner at a given location, transfer of the toner to the final hard copy medium, and fusing to cause the desired hard copy to become durable. Types of EP include Laser, LED, and LCD. Colour EP is distinguished from monochrome EP in that toners of at least three different colours are available in a given product at one time. Two types of colour EP technology are defined below:

a. Parallel Colour EP – A marking technology that uses multiple light sources and multiple photoconductors to increase the maximum color printing speed.

b. Serial Colour EP – A marking technology that uses a single photoconductor in a serial fashion and one or multiple light sources to achieve the multi-colour hard copy output.

*Government* means the Government of the Hong Kong Special Administrative Region. (HKSAR)

*High Performance Ink Jet (IJ)* means the use of an IJ marking technology in high-performance business applications usually occupied by electrophotographic marking technology. This difference between the conventional IJ product and the High Performance IJ product is denoted by the presence of nozzle arrays that span the width of a page and/or the ability to dry the ink on the media through additional media heating mechanisms.

<i>IEC</i>	means the International Electrotechnical Commission.
<i>Impact</i>	means a marking technology characterized by formation of the desired hard copy image by transferring colorant from “ribbon” to media via an impact process. Two types of impact technology are Dot Formed Impact and Fully-formed Impact.
<i>Ink Jet (IJ)</i>	means a marking technology where images are formed by depositing colorant in small drops directly to the print media in a matrix manner. Colour IJ is distinguished from monochrome IJ in that more than one colorant is available in a product at any one time. Typical types of IJ include Piezo-electric (PE) IJ, IJ Sublimation, and Thermal IJ.
<i>Inspecting officer</i>	means the officer authorized by the Director to carry out inspection on appliances under this scheme.
<i>ISO</i>	means the International Organization for Standardization.
<i>Label</i>	means the energy label as described in Section 7.
<i>Media Format</i>	<p><b>Large Format:</b> Products designed for A2 media and larger, including those designed to accommodate continuous-form media greater than or equal to 406 mm wide. Large-format products may also be capable of printing on standard-size or small-format media.</p> <p><b>Standard Format:</b> Products designed for standard-sized media (e.g., Letter, Legal, Ledger, A3, A4, B4), including those designed to accommodate continuous-form media between 210 mm and 406 mm wide. Standard-size products may also be capable of printing on small-format media.</p> <p><b>Small Format:</b> Products designed for media sizes smaller than those defined as Standard (e.g., A6, 4”x6”, microfilm), including those designed to accommodate continuous-form media less than 210 mm wide.</p>
<i>Model</i>	means the commercial description of the make, type, and if available and appropriate, variant and version of a printer.
<i>Off Mode</i>	means the power state that the product enters when it has been manually or automatically switched off but is still plugged in and connected to the mains. This mode is exited when stimulated by an input, such as a manual power switch or clock timer to bring the unit into Ready Mode. When this state is resultant from a manual intervention by a user, it is often referred to as Manual Off, and when it is resultant from an automatic or predetermined stimuli (e.g., a delay time or clock), it is often referred to as Auto-off.



*Participants* means the manufacturers, importers or the dealers of printers participating in the scheme.

*Printer* means an imaging equipment that serves as a hard copy output device and is capable of receiving information from single-user or networked computers, or other input devices (e.g. digital cameras). The unit must be capable of being powered from a wall outlet or from a data or network connection.

*Product Speed* means, Standard-sized products (a single A4 or 8.5"x11" sheet) printed on one side in a minute is equal to one image-per-minute (ipm). If the maximum claimed speeds differ when producing images on a single A4 or 8.5"x11" paper, the higher speed shall be used.

◆ For Small-format products, a single A6 of 4"x6" sheet printed/copied/scanned on one side in a minute is equal to 0.25 ipm.

◆ For Large-format products, a single A2 is equivalent to 4 ipm and one A0 sheet is equivalent to 16 ipm.

◆ For continuous-form products categorized as Small-format, Large-format, or Standard-size, print speed in ipm should be obtained from the product's maximum marketed imaging speed in meters per minute according to conversion below:

$$X \text{ ipm} = 16 \times [\text{Maximum media width(meters)} \times \text{Maximum imaging speed (length, meters/minute)}]$$

In all cases, the converted speed in ipm should be rounded to nearest integer.

*Rated frequency* means the frequency shown on the nameplate of the equipment.

*Rated voltage* means the voltage shown on the nameplate of the equipment.

*Ready Mode* means the condition that exists when the product is not producing output, has reached operating conditions, has not yet entered into any lower-power modes, and can enter Active Mode with minimal delay. All product features can be enabled in this mode, and the product must be able to return to Active Mode by responding to any potential input options designed into the product. Potential inputs include external electrical stimulus (e.g., network stimulus, fax call, or remote control) and direct physical intervention (e.g., activating a physical switch or button).

<i>Recognized laboratory</i>	means a laboratory that complies with the requirements as stated in Section 8 and is acceptable to the Authority for carrying out tests and issuing test reports for printers.
<i>Scheme</i>	means the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Printers.
<i>Sleep Mode</i>	means the reduced power state that the product enters automatically after a period of inactivity. In addition to entering Sleep Mode automatically, the product may also enter this mode 1) at a user set time-of-day, 2) immediately in response to user manual action, without actually turning off, or 3) through other, automatically-achieved ways that are related to user behaviour. All product features can be enabled in this mode and the product must be able to enter Active Mode by responding to any potential input options designed into the product; however, there may be a delay. Potential inputs include external electrical stimulus (e.g., network stimulus, fax call, remote control) and direct physical intervention (e.g., activating a physical switch or button). The product must maintain network connectivity while in Sleep Mode, waking up only as necessary.
<i>Solid Ink (SI)</i>	means a marking technology where the ink is solid at room temperature and liquid when heated to the jetting temperature. Transfer to the media can be direct, but is most often made to an intermediate drum or belt and then offset printed to the media.
<i>Standby Mode</i>	means the lowest power consumption mode which cannot be switched off (influenced) by the user and that may persist for an indefinite time when the product is connected to the main electricity supply and used in accordance with the manufacturer's instructions (Reference is drawn to IEC62301:2005 for measurement of standby power.). Standby Mode is the product's minimum power mode.
<i>Stencil</i>	means a marking technology that transfers images onto the print media from a stencil that is fitted around an ink drum.
<i>Typical Electricity Consumption (TEC)</i>	means a method of testing and comparing the energy performance of imaging equipment products, which focuses on the typical electricity consumed by a product while in normal operation during a representative period of time. The key criteria of the TEC approach for imaging equipment is a value for typical weekly electricity consumption, measured in kilowatt-hours (kWh).

*Test Image* means a test image is Test Pattern A from ISO/IEC standard 10156:1999. It should be rendered in 10 point size in a fixed-width Courier font (or nearest equivalent); German-specific characters need not to be reproduced if the product is incapable of doing so. The image shall be rendered on A4 or 8.5" x11" sheet of paper. For MFDs that can interpret a page description language (PDL), images shall be sent to the product in PDL.

*Thermal Transfer (TT)* means a marking technology where the desired hard copy image is formed by depositing small drops colorant (usually colour waxes) in a melted/fluid state directly to the print media in a matrix manner. TT is distinguish from IJ in that the ink is solid at room temperature and is made fluid by heat.

## 5. Technical Standards

### Typical Electricity Consumption (TEC) Requirements

- 5.1 The power rating of a printer model (or base unit) at various product speeds for TEC shall qualify according to the corresponding specifications as shown in Table 1.

Table 1: Maximum Allowable TEC Rating for Printers

#### Colour Printers

Colour Product Speed (ipm)	Maximum TEC (kWh/week)
$\leq 32$	$(0.10 \text{ kWh/ipm})x + 2.8 \text{ kWh}$
$32 < x \leq 58$	$(0.35 \text{ kWh/ipm})x - 5.2 \text{ kWh}$
$> 58$	$(0.70 \text{ kWh/ipm})x - 26.0 \text{ kWh}$

#### Monochrome Printers

Monochrome Product Speed (ipm)	Maximum TEC (kWh/week)
$\leq 15$	1.0 kWh
$15 < x \leq 40$	$(0.10 \text{ kWh/ipm})x - 0.5 \text{ kWh}$
$40 < x \leq 82$	$(0.35 \text{ kWh/ipm})x - 10.3 \text{ kWh}$
$> 82$	$(0.70 \text{ kWh/ipm})x - 39.0 \text{ kWh}$

**Note:**  $x = \text{Monochrome Product Speed (ipm)}$ .

- 5.2 For printer with a Type 2 DFE, the energy consumption of the DFE should be excluded when comparing the product's measured TEC value to the criteria listed in Table 1. The DFE must not interfere with the ability of the printer to enter or exit its lower-power modes. In order to take advantage of this exclusion, the DFE must meet with the

definition in Section 4 and be a separate processing unit that is capable of initiating activity over the network.

### **Operation Mode (OM) Requirements**

- 5.3 For printer with a functionally-integrated DFE that relies on the imaging product for its power, the power consumption of the DFE should be excluded when comparing the product’s measured Sleep Mode power to the combined marking-engine and functional-adder criteria limits and when comparing the measured Standby Mode power to the Standby criteria limits. The DFE must not interfere with the ability of the printer to enter or exit its lower-power modes. In order to take advantage of this exclusion, the DFE must meet the definition and be a separate processing unit that is capable of initiating activity over the network.

### **Operation Mode (OM) Default Time Requirement**

- 5.4 The default time to Sleep Mode of a printer model (or base unit) at various product speeds shall qualify according to the corresponding specifications as shown in Table 2.

**Table 2: Maximum Allowable Default Time to Sleep Mode**

<b>Media Format</b>	<b>Monochrome Product Speed (ipm)</b>	<b>Sleep Mode Default Time (minutes)</b>
Small or Standard	$\text{ipm} \leq 10$	5
	$10 < \text{ipm} \leq 20$	15
	$20 < \text{ipm} \leq 30$	30
	$\text{ipm} > 30$	60
Large	$\text{ipm} \leq 30$	30
	$\text{ipm} > 30$	60

- 5.5 All printer must be shipped with a maximum default time less than or equal to 4 hours, which is only adjustable by the manufacturer. This maximum machine delay time cannot be influenced by the user and typically cannot be modified without internal, invasive product manipulation. The default time settings provided in Table 2 may be user adjustable.
- 5.6 When reporting data and qualifying products that can enter Sleep Mode in multiple ways, manufacturers should reference a Sleep level that can be reached automatically. If the product is capable of automatically entering multiple, successive Sleep levels, it is at the manufacturer’s discretion which of these levels is used for qualification purposes; however, the default-delay time provided must correspond with whichever level is used.

### Operation Mode (OM)\_Sleep Mode Power Consumption

- 5.7 Measured Sleep Mode power consumption shall be less than or equal to the maximum Sleep Mode power consumption requirement as shown in Table 3.

**Table 3: Sleep Mode Power Allowance for Printers**

Media Format	Maximum Sleep Mode Power Allowance (Watts)	Marking Technology
Small	9	DS, DT, IJ, Impact, TT, EP, SI
Standard	4.6	Impact
	1.4	Ink Jet
Large	15	
	14	Non-Ink Jet

### Operation Mode (OM) Standby Mode Power Requirement

- 5.8 Standby Mode power, which is the lesser of the Ready Mode Power, Sleep Mode Power, and Off Mode Power, shall be less than or equal to the Maximum Standby Mode power requirement, **1 W**.

### General Performance Requirements

- 5.9 Printers which use EP, SI, and High Performance IJ marking technologies must meet the duplexing requirements, based on product speed as shown in Table 4.

**Table 4: Specification of Duplexing for Printers**

#### Colour Printers

Product Speed	Duplexing Requirement
$\leq 19$ ipm	N/A
20 – 39 ipm	Automatic duplexing must be offered as a standard feature or optional accessory at the time of purchase.
$\geq 40$ ipm	Automatic duplexing is required as a standard feature at the time of purchase.

#### Monochrome Printers

Product Speed	Duplexing Requirement
$\leq 24$ ipm	N/A
25 – 44 ipm	Automatic duplexing must be offered as a standard feature or optional accessory at the time of purchase.

$\geq 45$ ipm	Automatic duplexing is required as a standard feature at the time of purchase
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### Safety Requirements

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

## **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 default time 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 printers, the test conditions shall be as follows:
- |                                 |                          |
|---------------------------------|--------------------------|
| (a) Electrical supply           | 220V $\pm$ 5%;           |
| (b) Frequency                   | 50Hz $\pm$ 1%;           |
| (c) Line impedance              | < 0.25 ohm;              |
| (d) Total harmonic distortion   | < 2% (voltage);          |
| (e) Test room temperature       | 23 °C $\pm$ 5 °C.;       |
| (f) Test room relative humidity | 10% to 80%;              |
| (g) Test Paper                  | A4, 80g/m <sup>2</sup> . |

## Test Equipment

- 6.5 A watt-hour meter (or an “energy analyser”) shall be used to measure the energy consumption of the printer under test. The watt-hour meter shall be capable of reading the energy drawn by the printer without disrupting the electrical power supply.
- 6.6 The power meter should have a frequency response of at least 3 kHz and should provide resolution for corresponding measurement values listed in Table 5 and accuracy of  $\pm 5\%$  (For measurements of 0.5 W or less, the required accuracy is 0.02W). 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 power meter with higher crest factors and more current range choices should be preferred.

**Table 5: Minimum Resolution for power meter**

Measurement Values	Minimum Resolution
< 10 W	0.01W
$10W \leq x < 100W$	0.1W
$100W \leq x < 1.5kW$	1W
>1.5kW	10W

*Note:*  $x = \text{Measurement Values}$

- 6.7 Time measurements may be performed with an ordinary stopwatch with resolution of at least 1 second.

## Applicability

- 6.8 The test requirements are dependent upon the feature set of the product under evaluation. Table 6 shall be used to determine the applicability of each section of this scheme.

**Table 6: Test Procedure Applicability**

Media Format	Marking Technology	Evaluation Method
Small	DT, DS, EP, Impact, IJ, SI, TT	OM
Standard	High Performance IJ, DT, DS, EP, SI, TT	TEC
	Impact, IJ	OM
Large	DT, DS, EP, Impact, IJ, SI, TT	OM

### Test Procedure of TEC

- 6.9 For details please refer to Annex 1.

### Test Procedure of OM

- 6.10 For details please refer to Annex 2.

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## **7. Energy Label**

A self-adhesive label should be used.

### Label Location

- 7.1 The label should be affixed to the appliance at a prominent location and should be easily visible. The participant should ensure that the label appears on every registered appliance on display, sale or hire.

### Colour Scheme & Dimensions

- 7.2 The label should be printed on self-adhesive paper or material that is approved by the Director used with white-coloured background and should have colour schemes and dimensions as shown in Annex 3. It should be printed in English and in Chinese. Soft copy of this label can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

### Label Quality

- 7.3 The paper or material that is approved by the Director used for the label should be durable and possess good wear and tear characteristics. It should stick tightly on the appliance and can be removed easily when needed.

### Information on the Label

- 7.4 The information that appears on the label should accord to the label format and meanings as indicated in the Annex 3.

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

- 8.1 The Authority will accept the results and certificates issued by the test laboratory, which



fulfills one of the following criteria as specified in Clause 8.2 & 8.3 or Clause 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 (see Note); and the results are issued in a test report or certificate bearing the accreditation mark
- 8.3 The laboratory is accredited to GB 25956-2010 “Minimum allowable values of energy efficiency and energy grade for printers and fax machines” or IEC 62301 (First Edition 2005-06) 1.0 “Household Electrical Appliances – Measurement of Standby Power” or awarded the qualification of U.S. Environmental Protection Agency “Energy Star Laboratory for Imaging Equipment”.
- 8.4 The Authority will also consider the following arrangements:
- (a) Self-declaration by original manufacturer that the operations of their in-house laboratory followed principally the requirements of ISO/IEC 17025; and
  - (b) The manufacturer currently operating according to a recognized international quality system (such as ISO 9001); and
  - (c) The manufacturer’s in-house laboratory had been successful in carrying out energy consumption tests on office equipment and where these tests had been evaluated and certified by internationally recognised independent certification organisations.
- 8.5 The internationally recognised independent certification organizations mentioned in Clause 8.5 shall meet the following minimum requirements-
- (a) Being recognized internationally to be competent for certifying product energy efficiency performance tests; and
  - (b) Having experience in assessing and certifying the relevant energy efficiency performance tests; and
  - (c) Having well established assessment procedures, including staff training and assessment criteria, relating to assessment and certification of energy efficiency performance tests.

**Note:** *HKAS has concluded mutual recognition arrangements with overseas accreditation bodies for testing laboratory accreditation. 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.
- 9.2 The proforma letter of invitation is shown in Annex 4.
- 9.3 Applicant should submit formal application to

*Chief Engineer / Energy Efficiency A  
Energy Efficiency Office  
Electrical and 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 5 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**

- 9.4 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.
- 9.5 Details of the technical information to be submitted together with the application are listed as follows:
- (a) information on the company:  
name, address, telephone number, fax, email address, contact person, importer, distributor, etc.
  - (b) products to apply for participating in the scheme:  
names of products, types, brand names, model references, countries of origin
  - (c) parties which will be responsible for making and fixing the Energy Label
  - (d) commencement date to affix energy label on appliance
  - (e) documentary proof that the applied appliance(s) comply with the Electrical Products (Safety) Regulation of the HKSAR, where applicable

- (f) detailed test reports shall provide at least the following relevant technical data on the applied appliance:
- Automatic Duplexing Capability (if applicable);
  - Monochrome Product Speed;
  - Typical Electricity Consumption (if applicable);
  - Default Delay Time to Sleep (if applicable);
  - Sleep Mode Power Allowance (if applicable);
  - Maximum Standby Power (if applicable).
- (g) supporting technical information and calculations
- (h) manufacturer declared maximum speed of product:
- Monochrome/Colour Print Speed (if applicable)

**Note :** *All photocopied test reports submitted to the office should be certified true copy by the appropriate organization.*

- 9.6 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**

- 9.7 On receipt of the application, the Authority will 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.
- 9.8 If the application is accepted, the participant will be notified of the result within 17 working days upon receipt of all necessary information requested. The participant 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 label is correctly printed and affixed on the appliance in accordance with Section 7. The proforma letter of acceptance is shown in Annex 7.
- 9.9 If the application is rejected, the notification letter as shown in Annex 8 will also be given within 17 working days upon receipt of all necessary information requested.
- 9.10 The flow chart for registration is shown in Annex 9.

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

- 9.11 The participant is obliged to:
- (a) submit application and information including test results in accordance with

format and procedures set out in Section 9.3 – 9.6;

- (b) conduct tests via recognized laboratories and to comply with the specified test methodology and classification scheme;
- (c) produce and affix 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 under this scheme;
- (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 his 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 energy labels from appliances which had been de-registered immediately.

9.12 The details of appliances registered under this scheme 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.

### **Termination**

9.13 Under circumstances of poor performance such as:

- (a) (repeated) failure to fulfil obligations set out under Section 9.11; or
- (b) Once false or inaccurate or misleading information is given on a label; 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 an appliance from the scheme 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.

De-registration may occur even when there is no legal action taken under either the Trade Descriptions Ordinance (Chapter 362) or the Copyright Ordinance (Chapter 528).

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

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## **10. Legal Provisions**

- 10.1 This scheme is a voluntary scheme. However, a participant who abuses the scheme by giving false information on a label may contravene provisions of the Trade Descriptions Ordinance (Chapter 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 (Chapter 528).

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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 unregistered appliances which have not been registered under the scheme.

### **Scope**

- 11.2 The scope of inspection includes sample checking and testing of the following items:
- 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 the information on the energy label accords with record;
  - (e) Whether the registered appliance complies with the energy consumption and performance requirements;
  - (f) Whether the data submitted by the participants are correct by random re-testing; and
  - (g) Whether unregistered appliances display unauthorized energy labels.
- 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 is found not meeting the requirements specified in accordance with the technical standards stipulated in Section 5 during random testing (i.e. discrepancy between the registration data and test result is more than 10%), the Authority may request the participant to conduct separate performance tests at his own costs, in accordance with the test methodology as stated in Section 6 in one of the test laboratories agreed by the Authority. 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**

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

### **Mode of Inspection**

- 11.7 Inspections will be carried out on registered appliances under the scheme on random basis. Based on the record of the registration, random inspection programmes will be developed.
- 11.8 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.
- 11.9 Inspections will normally be carried out at the retail outlets and appliance showrooms. Where necessary, inspection will also be done at warehouses.
- 11.10 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 participants 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 that appellant to attend meeting with 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 in the scheme, 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, and 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 the implementation of the scheme, the market will phase out appliances of low efficiency and public awareness of using energy efficient products will be much improved.
- 14.2 To further facilitate the public in choosing energy efficient appliances and raise public awareness on energy saving, the Government has introduced a mandatory EELS through the Energy Efficiency (Labelling of Products) Ordinance.

## Testing Procedure of Typical Electricity Consumption (TEC)

### Job Structure

- A1.1 For the purposes of Typical Electricity Consumption (TEC) test procedure, the speed of the product that is used to determine the job size for the test shall be the manufacturer's reported maximum claimed simplex speed for making monochrome images on standard-sized paper (A4 or 8.5"x11"), rounded to nearest integer.
- A1.2 The number of images per job shall be calculated according to the following three steps:
- (1) Calculate the number of jobs per day. The number of jobs per day varies with Product Speed:
    - ◆ For units with a speed of 8 ipm or less, use 8 jobs per day.
    - ◆ For units with a speed between 8 ipm and 32 ipm, the number of jobs per day is equal to the speed. For example, a 14 ipm unit shall use 14 jobs per day.
    - ◆ For units with a speed of 32 ipm and above, use 32 ipm jobs per day.
  - (2) Calculate the nominal amount of images per day from **Table A**. For example, a 14 ipm unit shall use  $0.5 \times 14^2 = 98$  images per day

**Table A – Imaging Equipment Job Table**

Product Type	Rating to use	Formula (images per day)
Monochrome	monochrome speed	$0.5 \times \text{ipm}^2$
Colour	monochrome speed	$0.5 \times \text{ipm}^2$

- (3) Calculate the number of **images per job** by dividing the number of images per day by the number of jobs per day. Round down (truncate) to nearest integer.

## Measurement procedures

A1.3 To measure time, an ordinary stopwatch and timing to a resolution of one second is sufficient. All energy figures are to be recorded as watt-hour (Wh). All time data is to be recorded in seconds or minutes. "Zero meter" references are to the "Wh" readout of the meter.

A1.4 Service/maintenance modes (including colour calibration) should generally not be included in TEC measurements. Any such modes that occur during the test shall be noted. If a service mode occurs during a job other than the first, that job may be dropped and a substitute job added to the test. In the case a substitute job is needed, do not record the energy values for the dropped job and add the substitute job immediately after Job 4. The 15-minute job interval shall be maintained at all times, including for the job that is dropped.

A1.5 The measurement procedure for printers is as follows:

Step	Initial State	Action	Record (at end of step)	Unit of Measure	Possible States Measured
1	Off	Connect the unit under test to the meter. Ensure the unit is powered and in Off Mode. Zero the meter; measure energy over 5 minutes or more. Record both energy and time.	Off energy	Watt-hour (Wh)	Off
			Testing Interval time	Hours (h)	
2	Off	Turn on unit. Wait until unit indicates it is in Ready mode.	N/A	N/A	N/A
3	Ready	Print a job of at least one output image but no more than a single job per Job Table. Record time to first sheet exiting unit. Wait until the meter shows that the unit has entered its final Sleep mode.	Active0 time	Hours (h)	N/A
4	Sleep	Zero meter; measure energy and time over 1 hour. Record the energy and time.	Sleep Energy	Watt-hour (Wh)	Sleep
			Sleep Time	Hours (h)	

5	Sleep	Zero meter and timer. Measure energy and time. Record time to first sheet exiting unit. Measure energy over 15 minutes from job initiation. The job must finish within the 15 minutes.	Job1 energy	Watt-hour (Wh)	Recovery, Active, Ready, Sleep
			Active1 time	Hours (h)	
6	Ready	Repeat Step 6.	Job2 energy	Watt-hour (Wh)	Same as above
			Active2 time	Hours (h)	
7	Ready	Repeat Step 6 (without Active time measurement).	Job3 energy	Watt-hour (Wh)	Same as above
8	Ready	Repeat Step 6 (without Active time measurement).	Job4 energy	Hours (h)	Same as above
9	Ready	Zero meter and timer. Measure energy and time until meter and/or units show that unit has entered Sleep Mode or the final Sleep Mode for units with multiple Sleep modes, or 4 hours.	Final Energy	Watt-hour (Wh)	Ready, Sleep
			Final Time	Hours (h)	

**Notes :** *Before beginning the test, it is helpful to check the power management default-delay times to ensure they are as-shipped, and to confirm that there is plenty of paper in the device.*

*“Zero meter” references may be accomplished by recording the accumulated energy consumption at that time rather than literally zeroing the meter.*

Figure 1 - TEC Measurement Procedure



Figure 1 shows a graphic form of the measurement procedure. Note that products with short default-delay times may include periods of Sleep within the four job measurements, or Auto-off within the Sleep measurement in the Step 4. Also, print-capable products with just one Sleep mode will not have a Sleep mode in final period.

## Calculation methods

1.6 Calculations of TEC are based on imaging jobs being in two clusters each day with the unit going to its lowest power mode in between (as during a lunch break), as illustrated in Figure 2. It is assumed that weekends have no usage and no manual switching-off is done.

Figure 2 - A Typical Day

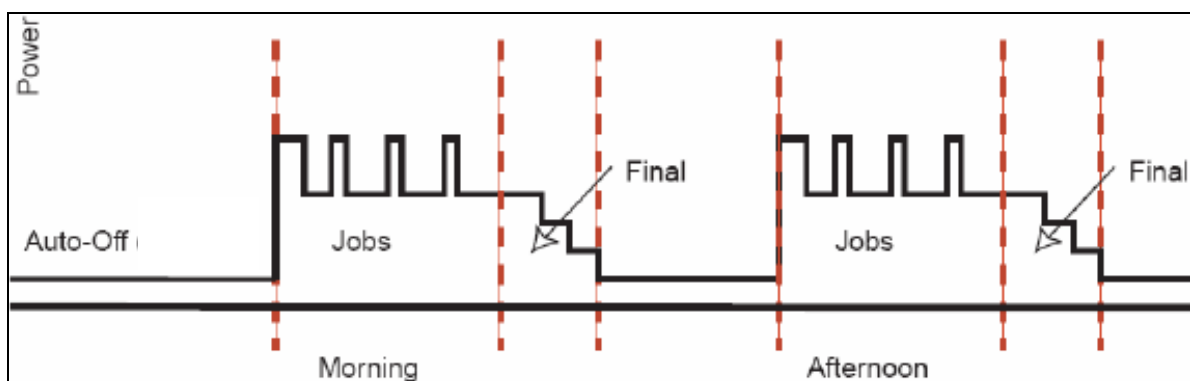


Figure 2 shows a schematic example of eight-ipm printer that performs four jobs in morning, four jobs in afternoon, has two "final" periods and an Auto-off mode for the remainder of the workday and all of the weekend. An assumed "lunchtime" period is implied but not explicit.

*The figure is not drawn to scale. As shown, jobs are always 15 minutes apart and in two clusters. There are always two full “final” periods regardless of the length of these periods.*

A1.7 Final Time is the period of time from the last job being initiated to the start of the lowest power mode (Sleep mode) minus the 15-minute job interval time.

A1.8 The following two equations are used for all product types:

$$\text{Average Job Energy} = (\text{Job2} + \text{Job3} + \text{Job4}) / 3$$

$$\text{Daily Job Energy} = (\text{Job1} \times 2) + [(\text{Jobs per day} - 2) \times \text{Average Job Energy}]$$

A1.9 The calculation method for printers also uses the following three equations:

$$\text{Daily Sleep Energy} = [24 \text{ hours} - ((\text{Job per day}/4) + (\text{Final Time} \times 2))] \times \text{Sleep Power}$$

$$\text{Daily Energy} = \text{Daily Job Energy} + (2 \times \text{Final Energy}) + \text{Daily Sleep Energy}$$

$$\text{TEC} = (\text{Daily Energy} \times 5) + (\text{Sleep Power} \times 48)$$

A1.10 The specifications of the metering equipment and ranges used in each measurement shall be reported. Measurements must be conducted so as to result in a potential error of the TEC value of no more than 5%.

## Testing Procedure of Operation Mode (OM)

B1.1 Measurement of OM power and delay times shall be conducted according to the **Table B**, subject to the following provisions:

- a) All power figures shall be recorded in watts (W) in accordance with IEC 62301(First Edition 2005-06) 1.0, unless otherwise specified in this document.
- b) The accuracy requirement for this OM test procedure is 2% for all measurements except for Ready power, where it is 5%.
- c) To measure time, an ordinary stopwatch and timing to a resolution of one second is sufficient. All power figures are to be recorded in watts (W).
- d) Service/maintenance modes (including colour calibration) generally should not be included in measurements. Any adaptation of the procedure needed to exclude such modes that occur during the test shall be noted.

**Table B: Operation Mode (OM) Test Procedure**

Step	Initial State	Action(s)	Record	Unit of Measure
1	Off	Plug the unit into meter. Turn on unit. Wait until unit indicates it is in Ready Mode.	N/A	N/A
2	Ready	Print, copy, or scan a single image.	N/A	N/A
3	Ready	Measure Ready power.	Ready power	Watts (W)
4	Ready	Wait and measure default delay-time to Sleep.	Sleep default delay time	Minutes (min)
5	Sleep	Measure Sleep power.	Sleep power	Watts (W)
6	Sleep	Wait and measure default delay time to Auto-off. (Disregard if no Auto-off Mode)	Auto-off default delay time	Minutes (min)
7	Auto-off	Measure Auto-off power. (Disregard if no Auto-off Mode)	Auto-off power	Watts (W)
8	Auto-off	Manually turn device off and wait until unit is off. (If no manual on-off switch, note and wait for lowest-power Sleep state).	N/A	N/A
9	Off	Measure Off power. (If no manual on-off switch, note and measure Sleep Mode power).	Off power	Watts (W)

**Notes:** *Step 1 – If the unit has no Ready indicator, use the time at which the power consumption level stabilizes to the Ready level, and note this detail when reporting*

the product test data.

*Steps 4 & 5 – For products with more than one Sleep level, repeat these steps as many times as necessary to capture all successive Sleep levels and report this data. Two Sleep levels are typically used in large-format photocopiers and MFDs that use high-heat marking technologies. For products lacking this Mode, disregard Steps 4 and 5.*

*Steps 4 & 6 – Default-delay time measurements are to be measured in parallel fashion, cumulative from the start of Step 4. For example, a product set to enter a Sleep level in 15 minutes and enter a second Sleep level 30 minutes after entering the first Sleep level will have a 15-minute default-delay time to the first level and a 45 minute default-delay time to the second level..*

B1.2 The eligibility criteria in **Table 3: Sleep Mode Power Allowance for Printers** address the marking engine of the product. Since products are expected to be shipped with one or more functions beyond a basic marking engine, the corresponding allowances below should be added to the marking engine criteria for Sleep. The total value for the base product with applicable “functional adders” should be used to determine eligibility. Manufacturers may apply no more than **three** Primary functional adders to each product model, but may apply as many as Secondary adders as present (with Primary adders in excess of three included as Secondary adders).

**Table C: Operation Mode (OM) Functional Adders**

Type	Details	Functional Adder Allowances (W)	
		Primary	Secondary
Interface	A. Wired < 20 MHz	0.3	0.2
	A physical data - or network-connection port present on the imaging product that is capable of a transfer rate < 20 MHz. Includes USB 1.x, IEEE488, IEEE 1284 / Parallel / Centronics, RS 232 and/or fax modem.		
	B. Wired $\geq$ 20 MHz and < 500 MHz	0.5	0.2
	A physical data - or network-connection port present on the imaging product that is capable of a transfer rate $\geq$ 20 MHz and < 500 MHz. Includes USB 2.x, IEEE488, IEEE 1394 / Fire Wire / i.LINK and 100 MHz Ethernet.		
	C. Wired $\geq$ 500 MHz	1.5	0.5
	A physical data - or network-connection port present on the imaging product that is capable of a transfer rate $\geq$ 500 MHz. Includes 1G Ethernet.		
	D. Wireless	3.0	0.7
	A data - or network-connection interfaces present on the imaging product that is capable of a transfer data via radio-frequency wireless means. Includes Bluetooth and 802.11.		
E. Wired card / camera / storage	0.5	0.1	



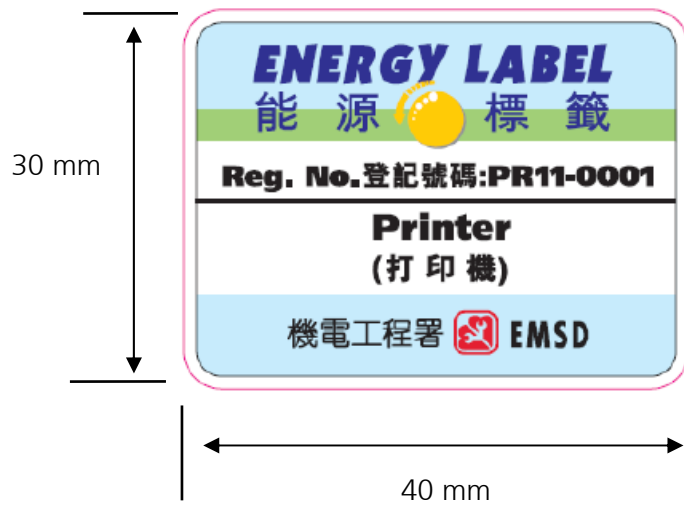
	A physical data - or network-connection port present on the imaging product that is designed to allow the connection of an external device, such as flash memory-card / smart-card readers and camera interfaces (including PictBridge).		
	G. Infrared	0.2	0.2
	A data- or network-connection interface present on the imaging product that is designed to transfer data via infrared technology. Includes IrDA.		
Other	Storage	N.A.	0.2
	Internal storage drives present on the imaging product. Includes internal drives only (e.g. disk drives, DVD drives, Zip drives), and applies to each separate drive. This adder does not cover interfaces to external drives (e.g. SCSI) or internal memory.		
	Scanners with CCFL lamps or non-CCFL lamps	N.A.	0.5
	The presence of scanner that use Cold Cathode Fluorescent Lamp (CCFL) technology or a technology other than CCFL, such as Light-Emitting Diode (LED), Halogen, Hot-Cathode Fluorescent Tube (HCFT), Xenon, or Tubular Fluorescent (TL) technologies. This adder is applied only once, regardless of the lamp size or the number of lamps/bulbs employed.		
	PC-based system (cannot print/copy/scan without use of significant PC resources)	N.A.	- 0.5
	This adder applies to imaging products that rely on an external computer for significant resources, such as memory and data processing, to perform basic functions commonly performed by imaging product independently, such as page rendering. This adder does not apply to products that simply use a computer as a source or destination for image data.		
	Cordless handset	N.A.	0.8
	The capability of the imaging product to communicate with a cordless handset. This adder is applied only once, regardless of the number of cordless handsets the product is designed to handle. This adder does not address the power requirements of the cordless handset itself.		
	Memory	N.A.	1W per 1 GB
	The internal capacity available in the imaging product for storing data. This adder applies to all volumes of internal memory and should be scaled accordingly.		
	Power-supply (PS) size, based on PS output rating (OR) <i>Note: This adders only applies to Standard-size, Colour/Mono Ink Jets /Impact Printers</i>	N.A.	For PSOR > 10W, 0.02 x (PSOR-10W)
	The allowance is calculated from the internal or external power supply's rated DC output as specified by the power supply manufacturer. (It is not a measured quality)		

B1.3 For the adder allowances shown in **Table C**, distinctions are made for “Primary” and “Secondary” types of adders. These designations refer to the state in which the interface is required to remain while the imaging product is in Sleep. Connections that remain active during the OM test procedure while the imaging product is in Sleep are defined as Primary, while connections that can be inactive while the imaging product is in Sleep are defined as Secondary. Most functional adders typically are Secondary types

B1.4 Manufacturers should consider only the adder types that are available on a product in its as-shipped configuration. Options available to the consumer after the product is shipped or interfaces that are present on the product's externally-powered digital front-end (DFE) should not be considered when applying allowance to the imaging product.

B1.5 For products with multiple interfaces, these interfaces should be considered as unique and separate. However, interfaces that perform multiple functions should only be considered once.

## Energy Label Format



(Not to Scale)

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

## **Proforma Letter of Invitation**

Our ref. EMSD/EEO/LB/24

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 Printers**

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 printers to Hong Kong with effect from (\_\_\_\_\_). The details of the scheme<sup>①</sup> have been finalized and I enclose herewith a guide of the scheme for your reference.

Being one of the major printer 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 5) and submit details including technical information in accordance with the attached Annex 6 to the 'Chief Engineer / Energy Efficiency A' at the following address.

Energy Efficiency Office  
Electrical and 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 printer is found to be non-compliant, we may consider deregistering the printer from the Scheme.

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

Yours faithfully,

for Director of Electrical & Mechanical Services

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

## **Proforma Letter of Application**

Your ref. EMSD/EEO/LB/24

Our ref.

Tel.

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 Printers**

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 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 of 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 and this cannot be readily rectified, the Authority may order it be de-registered from the scheme.

The details of information of those appliances which we intend to register with the Authority are shown in the attached document, (Annex 6) 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 number, Fax, E-mail Address, Contact person, Importer, Distributor, etc.
2. Product to apply for participating in the scheme:  
Name of products, types, make, model references, countries of origin
3. Parties which will be responsible for making and fixing the Energy Label
4. Commencement date to affix Energy Labels on appliance
5. Detailed test reports providing at least the following relevant technical data for the appliances:
  - (a) Automatic Duplexing Capability (if applicable);
  - (b) Monochrome Product Speed;
  - (c) Typical Electricity Consumption (if applicable);
  - (d) Default Delay Time to Sleep (if applicable);
  - (e) Sleep Mode Power Allowance (if applicable);
  - (f) Maximum Standby Power (if applicable).
- 6.. Manufacturer declared maximum speed of product:
  - ◆ Monochrome Print Speed (if applicable)
  - ◆ Colour Print Speed (if applicable)
7. Documentary proof that the product(s) comply with 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. EMSD/EEO/LB/24

Tel:  
Fax:

Date

[ Name and Address of  
Manufacturers/Importers/Agents  
]

Dear Sir/Madam,

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

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 printers registered. The registered printers are as follows :

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

You are allowed to affix a specified energy label 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 certificates of the registered appliances are ready for collection at this office.

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. EMSD/EEO/LB/24

Tel.

Fax.

Date

[ Name and Address of  
Manufacturers/Importers/Agents

]

Dear Sir/Madam,

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

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**

