
The Hong Kong Voluntary Energy Efficiency Labelling Scheme for

Computers January 2017

Energy Efficiency  **EMSD**

Electrical and Mechanical Services
Department

3 Kai Shing Street, Kowloon, Hong Kong

EMSD Homepage: <http://www.emsd.gov.hk>

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1. Purpose

- 1.1 This set of document is intended to give a general description to the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers (The Scheme).

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 EELS, some common types of household electrical / gas 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 implemented in several forms and in different stages of development in many countries. The EELS generally aims to achieve :
- greater public awareness of energy conservation and environmental improvement needs;
 - provision of readily available, pre-purchase information on energy consumption and efficiency data to enable ordinary consumers to select more energy efficient products;
 - stimulation to the manufactures/market for phasing out less energy efficient models; and
 - motivation of the actual energy savings behaviours and environmental improvements.
- 2.3 Hong Kong aims at achieving the above objectives. At present, the Hong Kong Voluntary Energy Efficiency Labelling Scheme covers 22 types of household electrical / gas appliances and office equipment. Amongst them, 13 types are electrical appliances, 7 types are office equipment, and 2 types are gas appliances.

3. Scope

- 3.1 The Scheme will only apply to the manufacturers and importers (i.e. local agents, retailers and the related parties) of computers who are interested to or have participated in the Scheme.
- 3.2 The Scheme commenced from **23 December 2004**. It is further revised on **1 January 2017**. The existing and newly registered labels will remain valid till **31 December 2019**. By then, re-registration may be required subject to the review of the Scheme.
- 3.3 This Scheme applies to the computer products defined and specified below :
- (a) desktops, towers or mini-towers, or portable units. These include high-end desktop computers, personal computers (PCs), workstations, network computer desktops, X terminal controllers, computer-based point-of-sale retail terminals and tablet PCs. To qualify, the unit must be capable of being powered from a wall outlet, but this does not preclude units that are capable of being powered from a wall outlet and also from a battery. This definition is intended primarily to cover computers sold for use in businesses or homes.
 - (b) A tablet PC capable of being powered and/or charged from a wall outlet and marketed as being a "PC" or personal computer is eligible under the definition of "portable unit".
- 3.4 The Scheme does not cover the computer products defined and specified below :
- (a) products which are marketed as "personal handheld devices" (PDAs). A PDA unit does not function as a desktop or laptop computer because of its size and target-function, nor does it consume similar amounts of energy to operate;
 - (b) computers sold or otherwise marketed as "File Server" or "Server".
- 3.5 The scope of the Scheme covers all new computers which are being sold in Hong Kong, imported to or manufactured in Hong Kong, with effect from the date that is declared by the participants but does not cover the second-hand products, products already in use, under trans-shipment or manufactured for export, etc.

3.6 The Scheme is operated as a 'Recognition Type' labelling system. All participating computers will be registered under this Scheme provided that they have met the performance requirements specified in section 7 of the Scheme.

4. Definitions

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

| | |
|----------------------------|--|
| Authority | means the Electrical & Mechanical Services Department (EMSD), the Government of the HKSAR. |
| computer | means a desktop, tower or mini-tower, or portable unit including high-end desktop computers, personal computers, workstations, network computer desktops, X terminal controllers, computer-based point-of-sale retail terminals and tablet PCs. To qualify, the unit must be capable of being powered from a wall outlet, but this does not preclude units that are capable of being powered from a wall outlet and also from a battery. |
| "Deep Sleep" mode | means the further reduced power state that the monitor enters after a further period of inactivity after "Sleep" mode. |
| Director | means the Director of Electrical & Mechanical Services Department. |
| Government | means the Government of the HKSAR. |
| IEC | means the International Electrotechnical Commission. |
| inactivity | means a period of time during which a computer does not encounter any user input (e.g., keyboard input or mouse movement.) |
| inspecting officer | means the officer authorized by the Director to carry out inspection on Computers under this Scheme. |
| integrated computer system | means system in which the computer and visual display monitor are combined into a single unit. Such system must meet all of the following criteria: (a) it is not possible to measure the power consumption of the two components separately; and |

| | |
|---|---|
| | (b) the system is connected to the wall outlet through a single power cable. |
| ISO | means International Organisation for Standards. |
| label | means the energy label as described in section 8 of this document. |
| maximum continuous power rating of power supply (MCPR_PS) | means the value of maximum continuous power rating defined by the participants in the operating instructions provided with the product. |
| model | means the commercial description of the make, type, and if available and appropriate, variant and version of a computer. |
| monitor | means a cathode-ray tube (CRT), flat panel display (e.g., a liquid crystal display) or other display device and its associated electronics. A monitor may be sold separately or integrated into the computer chassis. This definition is intended primarily to cover standard monitors designed for use with computers. |
| participants | means the manufacturers, importers or the retailers of computers participating in the Scheme. |
| rated frequency | means the frequency marked on the nameplate or declared as such by the participants for the computer. |
| rated voltage | means the voltage marked on the nameplate or declared as such by the participants for the computer. |
| recognized laboratory | means a laboratory that complies with the requirements as stated in section 9 of this document and is acceptable to the Authority for carrying out tests and issuing test reports for computers. |
| “Sleep” mode | means the reduced power state that the computer / monitor enters after a period of inactivity. |
| the/this Scheme | means the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers. |

wake events means a user, programmed, or external event or stimulus that causes the computer to transition from its "Sleep" modes to its active mode of operation. Examples of wake events include, but are not limited to, movement of the mouse, keyboard activity or a button press on the chassis, and in the case of external events, stimulus conveyed via a telephone, remote control, network, cable modem, satellite, etc.

5. Classification of Computers

Classifications of Computers

5.1 Computers are classified into the following categories –

Table 1 : Classification of Computers

| Category | Description |
|----------|--|
| A | <ul style="list-style-type: none"> a. Computers that are shipped with the capability to be on networks such that they can remain in their "Sleep" mode while their network interface adapter retains the ability to respond to network queries. b. Computers that are not shipped with a network interface capability. c. Computers shipped to a non-networked environment. d. Computers sold or marketed as personal computers. |
| B | Computers that are shipped with the capability to be on networks that currently require the computer's processor and/or memory to be involved in maintaining its network connection while in "Sleep" mode. These computers are expected to maintain identical network functionality in and out of "Sleep" mode. |
| C | Integrated Computer System (computer and monitor are combined into a single unit). |

Key Criteria

5.2 The key criteria for products to qualify under this scheme include:

- Automatically entering a low-power “Sleep” mode after a period of inactivity.
- Fulfilling Energy-efficiency specifications based on power supply.
- Including mechanisms through which the low-power modes of monitors (if applicable) can be activated.

6 Test Methodology and Technical Standard

General

- 6.1 All test methods specified in this document are only related to checking compliance with the power rating during “Sleep” mode. 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” requirements. 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 computers, the test conditions shall be as follows:
- | | |
|-------------------------------|-------------------|
| (a) Electrical supply | 220V \pm 2%; |
| (b) Frequency | 50Hz \pm 2%; |
| (c) Line impedance | < 0.25 ohm; |
| (d) Total harmonic distortion | < 5%; and |
| (e) Test room temperature | 25 °C \pm 3 °C. |

Test Equipment

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

Measurement of Power Rating

- 6.7 The measurement procedures for the "Sleep" mode operation are as follows:
- (a) Power on all test equipment, wait until they have stabilised and properly adjust operation range.
 - (b) Connect the test equipment and unit under test.
 - (c) Check for normal operation of the test unit and leave all customer adjustment to factory default settings.
 - (d) Check the time required for the test unit to enter into "Sleep" mode against the default time.
 - (e) Either verify that the wall outlet power is within specifications or adjust the AC power source output as described in clause 6.4.
 - (f) Set the power meter current range. The full scale value selected multiplied by the crest factor rating ($I_{\text{peak}}/I_{\text{rms}}$) of the meter must be greater than the peak current reading from the oscilloscope.
 - (g) After the unit under test reaches operating temperature and the readings on the power meter stabilize, take the true power reading in watts from the power meter.
 - (h) Record the test conditions and test data. The measurement time shall be sufficiently long to measure the correct average value.
- 6.8 The default time to "Sleep" mode and average power rating of the computer in "Sleep" mode operation shall be determined by computing the average value of five (5) respective separate measurements.

7 Performance Requirements

Energy Efficiency Specifications for Qualifying Products

- 7.1 The energy efficiency specifications for qualifying computers are stipulated in the following clauses. There are three sets of requirement for the three computer categories respectively.
- 7.2 Computers under Category A shall fulfil the following requirement –
- (a) The computer shall enter a “Sleep” mode after a period of inactivity. The default time for all products shall be preset for less than 30 minutes. The user shall have the ability to change the time settings or disable the “Sleep” mode.
 - (b) If the computer is shipped with the capability to be on a network, it shall have the ability to enter a “Sleep” mode while on the network.
 - (c) If the computer is shipped with the capability to be on a network, it shall retain in “Sleep” mode its ability to respond to wake events directed or targeted to the computer while on a network. If the wake event requires the computer to exit the “Sleep” mode and perform a task, the computer shall re-enter its “Sleep” mode after a period of inactivity following the completion of the task requested.
 - (d) The computer shall consume power in the “Sleep” mode according to Table 2.

Table 2 : Energy Efficiency Specifications for Category A Computers

| Maximum Continuous Power Rating of Power Supply (MCPR_PS) | Consume power in “Sleep” mode (watts) |
|---|---------------------------------------|
| $MCPR_PS \leq 200\text{ W}$ | $\leq 15\text{ W}$ |
| $200\text{ W} < MCPR_PS \leq 300\text{ W}$ | $\leq 20\text{ W}$ |
| $300\text{ W} < MCPR_PS \leq 350\text{ W}$ | $\leq 25\text{ W}$ |
| $350\text{ W} < MCPR_PS \leq 400\text{ W}$ | $\leq 30\text{ W}$ |
| $MCPR_PS > 400\text{ W}$ | $\leq 10\%$ of MCPR of output |

Note 1 : Computers that always maintain a level of power consumption of 15 watts or less have complied with the power consumption requirements, and hence they are not required to incorporate the “Sleep” mode described.

7.3 Computers under Category B shall fulfill the following requirements:

- (a) The computer shall enter a "Sleep" mode after a period of inactivity. The default time for all products shall be preset for less than 30 minutes. The user shall have the ability to change the time settings or disable the "Sleep" mode.
- (b) If the computer is shipped with the capability to be on a network, it shall have the ability to enter a "Sleep" mode irrespective of the network technology.
- (c) The computer shall retain in "Sleep" mode its ability to respond to all types of network requests. There shall be no loss in network functionality available to the user (e.g., the network functionality available to the user during the "Sleep" mode shall be the same as that was available before the computer entered the "Sleep" mode).
- (d) The computer shall consume in the "Sleep" mode, no more than 15% of the maximum continuous power rating of its power supply.

7.4 Computers under Category C shall fulfill the following requirements:

- (a) The integrated computer system shall enter a "Sleep" mode after a period of inactivity. The default time for all products shall be preset for less than 30 minutes. The user shall have the ability to change the time settings or disable the "Sleep" mode.
- (b) If the integrated computer system is shipped with the capability to be on a network, it shall have the ability to enter a "Sleep" mode while on the network.
- (c) If the integrated computer system is shipped with the capability to be on a network, it shall retain in "Sleep" mode its ability to respond to wake events directed or targeted to the computer while on a network. If the wake event requires the computer to exit the "Sleep" mode and perform a task, the integrated computer system shall re-enter its "Sleep" mode after a period of inactivity after the completion of the task requested.
- (d) An integrated computer system shall consume no more than 35 watts in the "Sleep" mode. Integrated computer systems that always maintain a level of power consumption less than or equal to 35 watts comply with the power consumption requirements of this scheme and are not required to incorporate the "Sleep" mode described.

Other requirements

- 7.5 **Operating Systems** : The proper activation of a computer's low-power / "Sleep" mode is typically contingent upon the installation and use of a particular version of an operating system. If a computer is shipped from the applicant with one or more operating systems, the computer shall be capable of entering and fully recovering from the low-power / "Sleep" mode while running in at least one of those operating systems. If the computer is not shipped with operating system software, the applicant shall clearly specify which mechanism will render the computer compliant with the EELS requirement. In addition, if any special software, hardware drivers, or utilities are necessary for the proper activation and recovery of the "Sleep" mode, they must be installed in the computer.
- 7.6 **Monitor Control** : The computer shall include one or more mechanisms through which it can activate the low-power modes of a monitor with such modes. Applicant shall clearly specify in product literature the manner in which its computer can control energy labelled monitors, and any special circumstances that must exist in order for monitor power management to be accomplished. Applicant shall set the computer's default to activate the monitor's first low-power or "Sleep" mode within 30 minutes of user inactivity. Applicant shall also set the default time for the next level of power management such that the monitor enters the second low-power or "Deep Sleep" mode within 60 minutes of inactivity. The combined total of the default times for both low-power modes shall not exceed 60 minutes. Applicant can choose to set the computer to activate the monitor to enter the second low-power or "Deep Sleep" mode directly within 30 minutes of inactivity (i.e., the computer can activate the monitor to bypass the first "Sleep" mode and enter the second "Deep Sleep" mode). The user shall have the ability to change the time settings or disable the low-power modes for the monitor control. This monitor control requirement does not apply to integrated computer systems. However, integrated computer systems that are marketed and sold as part of a docking system shall have the capability to automatically control the power of an externally connected monitor.

Safety Requirements

- 7.7 All materials and workmanship of the products are also needed to comply with IEC 60950 "Information technology equipment – Safety" requirements and / or the Electrical Products (Safety) Regulation of the HKSAR, where applicable.

8 Energy Label

- 8.1 The specification of the energy label for computer is shown in Annex 1. After a reference number has been assigned to a product model in the name of a specified person and included in the Director's record, the specified person shall produce the energy label for his/her products of the listed model showing the information in strict accordance with the requirements in Annex 1.
- 8.2 (a) Subject to clause 8.2(c), the energy label is to be attached or affixed to a prominent position of the computer and is to be clearly visible. The participant should ensure that the label appears on every registered computer on display, sale or hire.
- (b) For the avoidance of doubt, if only part of the computer is being exhibited, the energy label is to be attached or affixed to a prominent position of that part and is to be clearly visible.
- (c) The energy label may be attached to the computer or its packaging in a manner specified by the Director where the Director has approved its being so attached.
- 8.3 The energy label shall be of cardboard, if it is to be attached as a swing tag, or be self-adhesive and shall be cut to the outline shown in Annex 1 or otherwise approved by the Director. A trim or die cut margin of up to 2 mm around the energy label is acceptable.
- 8.4 The paper used for the energy label shall be durable with good wear and tear characteristics.
- 8.5 The energy label should be printed in both Chinese and English. Soft copy of the energy label can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

9 Testing Facilities, Laboratories & Accreditation Bodies

- 9.1 The testing shall be carried out either by independent test institutes or by the manufacturers or by the importers themselves at their own test facilities. The Authority will accept the results and certificates issued by the test laboratory, which fulfill one of the following criteria as specified in clauses 9.2, 9.3 or 9.4.

9.2 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 (MRA) #, and the results are issued in a test report or certificate bearing the accreditation mark.

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. Partners to these arrangements recognise the accreditations granted by one another as equivalent.

9.3 The Authority will also consider the following –

- (a) Self-certification by original manufacturers that the operations of their in-house laboratories satisfy the requirements of ISO/IEC 17025; and
- (b) The manufacturers are currently operating according to a recognized international quality system (such as ISO 9001); and
- (c) The manufacturer's in-house laboratories had successfully carried out tests energy consumption tests on computers and where these tests had been evaluated and certified by third party internationally recognised independent certification organisations.

Laboratory Accreditation

9.4 The Authority takes cognizance of the need to ensure acceptable and compatible quality standards of testing laboratories, and considers that they need to be periodically accredited by some independent bodies.

9.5 The criteria of accreditation should be based on ISO/IEC 17025 and the certification body should operate in accordance with ISO/IEC 17011.

9.6 The Authority will recognize the accreditation granted by the HKAS under the HOKLAS and by overseas accreditation bodies with which HKAS has concluded MRA. For the accreditation by other certification bodies, the Authority will consider on a case-by-case basis.

Energy Efficiency Certification Service

9.7 An increasing number of countries now accept, as proof of product conformance, energy efficiency certification services provided by the organisation that has been accredited as a certification body. In accordance with this trend, the Authority will also consider test results that have been evaluated and certified according to the respective ISO or IEC standards of the Scheme by reputable certification organisations.

10 Registration and Participation

Registration Procedures

10.1 All manufacturers, importers and the other parties involved in the computers distribution network are welcome and encouraged to participate in the Scheme. The Authority will send invitation to those known manufacturers and importers. However, no matter whether invited or not, any interested parties may submit their applications for the registration.

10.2 The proforma letter of invitation is shown in Annex 2.

10.3 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 commit himself to fully comply with the duties, responsibilities and obligations set out in the 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 via online application services.

Information/Documents to be Submitted for Registration

10.4 Each make and model of a computer participating in the Scheme should be provided with a test report issued by a recognized laboratory. The test report should contain energy consumption tests and performance test results. The 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 number, E-mail address, Contact person, Importer, Distributor, etc.
- b) Products to apply for participating in the Scheme:
Name of products, types, brand names, models, countries of origin.
- c) The parties which will be responsible for making and fixing the Energy Labels;

- d) Commencement date to affix Energy Label on computer
Year _____, Month _____
- e) Detailed test reports shall provide at least the following relevant technical data of for the computer-
- Product Category
 - "Sleep" Mode power rating
 - Maximum Continuous Power Rating of the power supply.
- f) Documentary proof that the computer fulfils other requirement, if applicable, as stipulated in the test method.
- ability to enter a "Sleep" mode while on the network;
 - ability to respond to wake events;
 - ability to respond to all types of network requests;
 - requirement on operating systems; and
 - requirement on monitor control.
- g) Documentary proof that the computer complies with the IEC 60950 "Information technology equipment – Safety" requirements and/ or the Electrical Products (Safety) Regulation of the HKSAR, where applicable.

The above list of information can also be found in Annex 4, Information to be submitted to Energy Efficiency Office.

- 10.5 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

- 10.6 On receipt of the application, the Authority will process the application and verify whether the computer to be registered meets the 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 clause 12.2.

- 10.7 If the application is accepted, the participant will be notified of the result in writing within 17 working days upon receipt of all necessary information requested. The participants will then be allowed to affix the label onto the 'registered' computer. Both manufacturer and importer of the registered computer should ensure that the energy label is correctly printed and affixed on the computer in accordance with section 8. The proforma letter of acceptance is shown in Annex 5.
- 10.8 If the application is rejected, the notification letter will also be issued within 17 working days upon receipt of all necessary information requested. The proforma letter of rejection is shown in Annex 6.
- 10.9 The flow chart for registration is shown in Annex 7.

Participant's Duties, Responsibilities and Obligations

- 10.10 The participant is obliged to:-
- a) submit application and information including test results in accordance with format & procedures set out in clauses 10.3, 10.4 and 10.5;
 - b) conduct tests via recognized laboratories and to comply with the specified test methodology;
 - 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 a computer is registered under the Scheme;
 - e) allow random/ad-hoc inspection to be conducted by persons authorized by the Authority on registered computer at his premises;
 - f) conduct re-test(s) at his own costs at some recognized laboratories, if non-compliance is found on his registered computer. 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 registered computer fails to perform in accordance with the performance requirements as given in section 7 and this cannot be readily rectified, the Authority may order it be de-registered from the Scheme; and
 - i) remove all labels from the de-registered computers immediately.

- 10.11 The details of the registered computers under the Scheme will be kept in a register list maintained by the Authority. The registration records will be regularly uploaded and maintained in the EMSD Internet for public and interested parties for browsing and reference.

Termination

- 10.12 Under circumstances of poor performance such as –
- (a) (repeated) failure to fulfil the obligations set out under clause 10.10; or
 - (b) in any other case where the Director is of the opinion that registration of a computer is contrary to the public interest,
- the Authority may de-register the concerned computer from the Scheme with immediate effect by giving the participant a notice in writing. Once the computer is de-registered, energy label is not allowed to fix on it.
- De-registration may occur even when there is no legal action taken under either the Trade Description Ordinance (Chapter 362) or the Copyright Ordinance (Chapter 528).
- 10.13 Participant who decides to discontinue participating in the Scheme or to withdraw any registered model from the registered computers list shall give at least three months' advance notice to the Authority.

11 Legal Provisions

- 11.1 The Scheme is a voluntary scheme. However, a participant who abuses the Scheme by giving false information on an energy label may contravene provisions of the Trade Description Ordinance (Chapter 362).
- 11.2 No one could take advantage of the Scheme by using the energy label on his Computers without authorization of the Authority as that shall constitute an infringement of copyright under the Copyright Ordinance (Chapter 528).

12 Compliance, Monitoring and Inspection

Purpose

- 12.1 To uphold the credibility of the Scheme and to continue maintaining the confidence of the consumers, compliance check on energy labels on those computers participating in the Scheme are needed. Also, to avoid the non-participating parties from taking advantage of the Scheme by using unauthorized labels, suitable form of inspection shall be conducted on those computers which have not been registered under the Scheme.

Scope

- 12.2 The scope of inspection includes sample **checking** and **testing** of the following items:-
- (a) whether the energy label is affixed on the registered computer;
 - (b) whether the energy label on the registered computer is affixed to a prominent position in accordance with clause 8.2;
 - (c) whether the energy label being displayed is of correct format in accordance with section 8;
 - (d) whether the registered computer complies with the performance requirements;
 - (e) whether the data submitted by the participants are correct by random re-testing; and
 - (f) whether the unregistered computers display unauthorized energy labels.
- 12.3 The participants will be requested to take immediate remedial action and report the follow-up action taken if non-compliance is found on their computers.
- 12.4 For a registered computer which is found with energy performance data non-compliance to the performance requirements as stated in section 7, the Authority may request the participant to conduct separate energy performance tests at his own costs, in accordance with the test methodology as stated in section 6, in one of the testing laboratories agreed by the Authority.

- 12.5 If non-compliance is confirmed and no remedial action is to be taken by the participant, the Authority may order it be de-registered from the Scheme. Failure to remove energy labels from the de-registered computers after the Director has withheld his authorization for using such labels may contravene the relevant ordinances.

Inspecting Officers

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

Mode of Inspection

- 12.8 Inspections will be carried out on registered Computers under the Scheme on random basis. Based on the record of the registration, random inspection programmes will be developed.
- 12.9 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 clause 12.2.
- 12.10 Inspections will normally be carried at the computers retail outlets and showrooms. Where necessary, inspection will also be done at warehouses.
- 12.11 The inspection results will be properly recorded for future analysis as well as on evaluation of the effectiveness of the Scheme.

13 Complaints and Appeal

- 13.1 The Authority will be responsible for dealing with the complaints from participants and other parties against matters related to the Scheme.

Complaints Handling Procedures

- 13.2 The Director shall ensure that complaints are properly recorded and handled without undue delay.
- 13.3 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.
- 13.4 The Authority shall inform the complainant of the results or decisions made on the complaint.

Appeal Procedures

- 13.5 A participant who feels aggrieved by the decision or action given by the Authority according to section 10 may appeal to the Director in writing stating the reason for the appeal.
- 13.6 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.
- 13.7 The Director may by notice to the appellant require that appellant to attend meeting with him or his representative, provide documents and give evidence relevant to the appeal.
- 13.8 The Director shall notify the appellant of his decision and the reasons for it. The decision will be final and binding.

14 Maintenance of Scheme

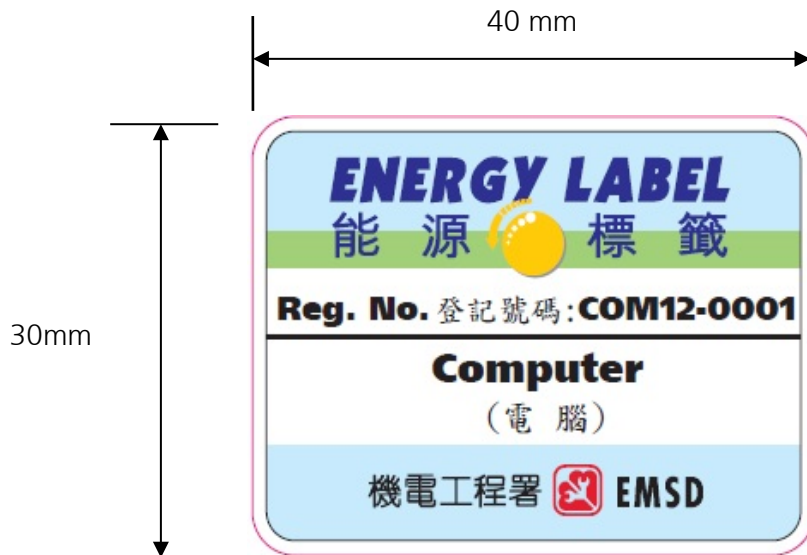
- 14.1 To ensure that the Scheme can continue to operate effectively and efficiently after its introduction, a proper system of maintenance is needed.
- 14.2 The maintenance system consists essentially of -
- (a) Continuous updating of the following relevant information of the participants in the Scheme -

- i. Details of the registered computers such as registration number, date of registration or de-registration if it occurs, performance data, make, model and other related information; and
 - ii. Details of the registered importers, manufacturers, local agents, etc.; in the distribution network such as address, date of registration or de-registration if it incurs, etc.
- (b) Periodic review of the test methodology, and procedures for application of 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.

15 Future Development

- 15.1 It is hoped that following the implementation of the Scheme, the market will phase out models of low efficiency appliances and public awareness of using energy efficient products will be much improved.
- 15.2 To further facilitate the public in choosing energy efficient appliances and raise public awareness on energy saving, the Government has introduced a mandatory Energy Efficiency Labelling Scheme through the Energy Efficiency (Labelling of Products) Ordinance.
- 15.3 Under the mandatory EELS, energy labels are required to be shown on prescribed products for supply in Hong Kong to inform consumers of their energy efficiency performance. Five types of prescribed products covered in the mandatory EELS are room air conditioners, refrigerating appliances, compact fluorescent lamps, washing machines, and dehumidifiers.

The Hong Kong Voluntary Energy Efficiency Labelling Scheme
for Computers
Energy Label Format



(Not to Scale)

Note : The figure of the energy label is shown not to scale.

Soft copy of this label can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

Proforma Letter of Invitation

Our ref. () EMSD/EEO/LB/28

Your ref.

Tel.

Fax.

Date

[Name and Address of
Manufacturers/Importers/Agents]

Dear Sir/Madam,

Invitation of Application for Registration in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers

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 computers to Hong Kong with effect from (_____). The details of the Scheme^① have been finalized and I enclose herewith a guide of the Scheme for your reference.

Being one of the major computers manufacturers / importers / agents^② 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) and submit details including technical information in accordance with the attached Annex 4 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 computer is found to be non-compliant, we may consider deregistering the computer 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 : ^① 'Scheme' means 'The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers '
^② delete as appropriate)

Proforma Letter of Application

Your ref. () EMSD/EEO/LB/28

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 in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers

Our company is the (manufacturer/importer/agent*) of _____ in Hong Kong. We support the introduction 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 computer(s) 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 the computer fails to perform in accordance with the required technical standards as stated in section 5 and the performance requirements as given in section 6 and this cannot be readily rectified, the Authority may order it be de-registered from the Scheme.

The details of information of the computer(s) which we intend to register with the Authority are shown in the attached document (Annex 4), 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 number, Email address, Contact person, Importer, Distributor, etc.
2. Product to apply for participating in the Scheme:
Name of products, types, brands, model references, countries of origin
3. The party which will be responsible for making and fixing the Energy Label.
4. Commencement date to affix Energy Label on computer
Year_____, Month_____
5. Detailed test reports shall provide at least the following relevant technical data of for the computer-
 - * Product Category
 - * "Sleep" Mode power rating
 - * Maximum Continuous Power Rating of the power supply.
6. Documentary proof that the computer fulfils other requirement, if applicable, as stipulated in the test method.
 - * ability to enter a "Sleep" mode while on the network;
 - * ability to respond to wake events;
 - * ability to respond to all types of network requests;
 - * requirement on operating systems; and
 - * requirement on monitor control.
- g) Documentary proof that the computer complies with the IEC 60950 "Information technology equipment – Safety" requirements and / or the Electrical Products (Safety) Regulation of the HKSAR, where applicable.

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/28

Tel:

Fax:

Date

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Name and Address of
Manufacturers/Importers/Agents

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Dear Sir/Madam,

Acceptance of Application for Registration in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers

With reference to your letter of ref. _____ dated _____, we are pleased to inform you that your application to participate in the captioned scheme has been accepted.

We enclose herewith the registration certificate(s) of computer(s) registered. The registered computer(s) is(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 computer package 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 _____.

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

Yours faithfully,

for Director of Electrical & Mechanical Services

Proforma Letter of Rejection

Our ref. () EMSD/EEO/LB/28

Your ref.

Tel.

Fax.

Date

「

Name and Address of
Manufacturers/Importers/Agents

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Dear Sir/Madam,

Rejection of Application for Registration in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Computers

With reference to your letter of ref. _____ dated _____, we regret to inform you that your application for registration in the Scheme has not been accepted for the following reasons:-

1. _____,
2. _____, 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

The Hong Kong Voluntary Energy Efficiency Labelling Scheme
for Computers –
Flow Chart of Registration

